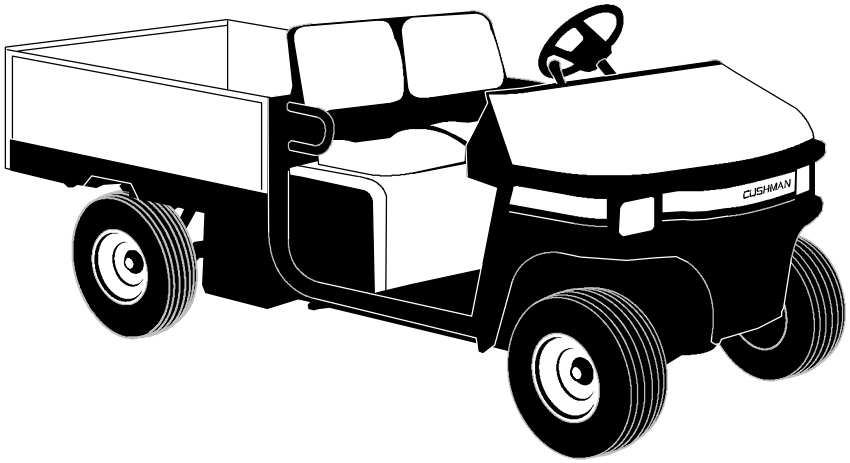
CUSHMAN
A Textron Company

4120402

PARTS & MAINTENANCE MANUAL



TURF-TRUCKS®

SUZUKI K6A LIQUID COOLED GASOLINE ENGINE MT
MODEL: 898627

SUZUKI K6A LIQUID COOLED GASOLINE ENGINE AT
MODEL: 898628

SUZUKI 970 LIQUID COOLED GASOLINE ENGINE
MODEL: 898671

PERKINS LIQUID COOLED DIESEL ENGINE
MODEL: 898673
EC MODEL: 898695

Always Think Safety!

Thank you for purchasing a Cushman, Textron product. You are one of our many customers who have voted their confidence in our company by purchasing our products.

This is one of the best designed and built pieces of commercial industrial and turf equipment available. Many safety features have been designed and built into this product. Please ***DO NOT*** **remove or defeat any safety features** as they were installed for your protection.

The useful life and good service you obtain from your vehicle depends to a large extent on the way it is **maintained and operated.**

Treat your equipment properly, lubricate and adjust it as instructed in this manual and it will give you many years of reliable service.

See your Cushman, Textron dealer for service and parts. He stocks genuine Cushman, Textron parts manufactured with the same precision and skill as the original parts.

Cushman Inc., A Textron Company, reserves the right to make changes at any time, without notice, in specifications and models and also to discontinue models and the accessories designed to be used on these models. The right is also reserved to change specifications or parts at any time without incurring any obligation to equip same on models manufactured prior to date of such change.

While the information contained in this parts manual is based on the latest product information available at the time of publication, the continuing accuracy of this parts manual cannot be guaranteed.

WARNING

- **When replacement parts are required, use genuine CUSHMAN parts or parts with equivalent characteristics including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.**

Illustrations in this manual are a reference guide for parts identification only. Since these illustrations may not depict actual positioning of component parts, they should not be used as an assembly diagram. Doing so may result in improper assembly leading to sudden failure.

MODIFICATIONS AND ACCESSORIES

Factory installed modifications and accessories are available for use on this vehicle.

Read and understand all literature before attempting to operate this vehicle or any attached equipment.

NOTICE

- Some vehicles may be equipped with special options that are not serviced by Cushman Textron.
- The addition of accessories not of manufacturer's design may result in erratic vehicle operation, improper battery charging and discharging, and failure of vehicle components.

Direct any inquiries to:
Customer Service Department
P.O. Box 388
Augusta, GA 30903-0388 USA

WARNING

- **Altering this equipment in any manner which adversely affects the equipments operation, performance, durability or use, may cause hazardous conditions.**

IMPORTANT!

THIS EQUIPMENT SHOULD NOT BE MODIFIED OR ADDED TO WITHOUT THE MANUFACTURER'S AUTHORIZATION.

SPECIFICATION INFORMATION

All information contained in this manual is the latest available at the time of printing. Cushman Textron reserves the right to make changes at any time without notice.

NOTICE

- After you identify a part by the reference number and the six digit cushman part number, ***always read the description of the part to be sure it is what you want.***

STANDARDS AND PUBLICATIONS

This product meets requirements of ANSI B56.8 and has been approved by Factory Mutual Research Corporation to meet all Powered Industrial Truck portions (classification D or G) of the OSHA requirements (as stated in section 1910.178). Approved powered trucks shall bear a label or some other identifying mark indicating approval by the testing laboratory. This product conforms to EC directives and amendments: 89/392 & 91/368.

Users, operators and service persons should be familiar with the following standards and publications: (The material may be obtained from the addresses shown).

- Factory Mutual Approval Standard:
  Class No's. 7811 & 7813; Gasoline or Diesel Powered Trucks, Types G, GS, D or DS.
  ADDRESS:
  Factory Mutual Research Corp.
  1151 Boston–Providence Highway
  Norwood, Massachusetts 02062 U.S.A.

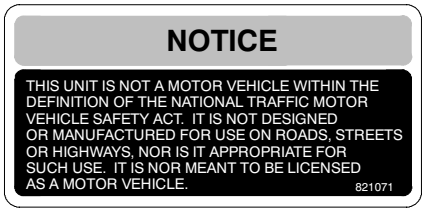
- National Fire Protection Association:
  ANSI/NFPA #505; Powered Industrial Trucks.
  ADDRESS:
  National Fire Prevention Association
  Batterymarch Park
  Quincy, Massachusetts 02269 U.S.A.

- ANSI/ASME B56.8 Personnel Burden Carriers
  ADDRESS:
  American National Standards Institute, Inc.
  1430 Broadway
  New York, New York 10018 U.S.A.

- ANSI/UL 558; Internal Combustion Engine Powered Industrial Trucks
  ADDRESS:
  American National Standards Institute, Inc.
  1430 Broadway
  New York, New York 10018 U.S.A.
  OR
  Underwriters Laboratories Inc.
  333 Pfingsten Road
  Northbrook, Illinois 60062 U.S.A.

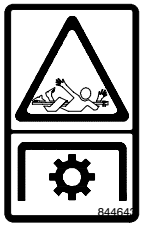
- Flammable and Combustible Liquids Code:
  ANSI/NFPA 30.
  ADDRESS:
  American National Standards Institute, Inc.
  1430 Broadway
  New York, New York 10018 U.S.A.
  OR
  National Fire Prevention Association
  Batterymarch Park
  Quincy, Massachusetts 02269 U.S.A.

OPERATION CONTROL SYMBOLS And DECALS



Motor Vehicle Compliance

This decal lets the operator know that the vehicle is not defined as a motor vehicle and therefore should not be driven on streets, roads or highways

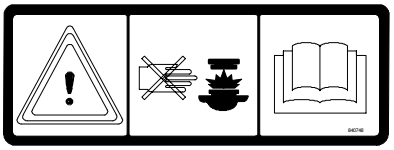


P.T.O. Warning

This decal warns the operator that an uncovered P.T.O. can cause entanglement of clothing and/or body parts.

Engine Oil Pressure Light

This light will come on when the ignition key is turned to the ON position and when the engine is started (it will shut off once the engine is running). **Its main function is to warn the operator if the oil pressure gets to low. If this light comes on during normal vehicle operation, stop the vehicle and check for problems**



Radiator Coolant Warning

This decal warns the operator not to remove the radiator cap when the engine is hot. Refer to the Cooling System Section in this manual for proper safety and operating instructions.

Park Brake Indicator Light

This light will come on when the park brake is applied.

Battery (Voltmeter) Charging

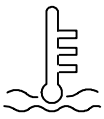
This symbol appears on the voltmeter gauge. This gauge indicates the charging of the battery.

Headlight Switch Positions

These symbols appear on the light switch. As indicated, each one represents the headlights functions.

Fuel Level Indicator

This symbol appears on the fuel gauge. The fuel gauge indicates the amount of fuel in the fuel tank



Water Temperature Gauge

This symbol appears on the water temperature gauge. This gauge warns the operator if the coolant system is overheating.

Engine RPM

This symbol indicates engine rpm's.

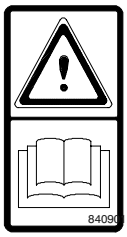
Electric Cooling Fan Warning

This decal warns the operator keep hands away from the cooling fan, the cooling fan can start at any time even with the ignition key in the OFF position.

Park Brake Warning

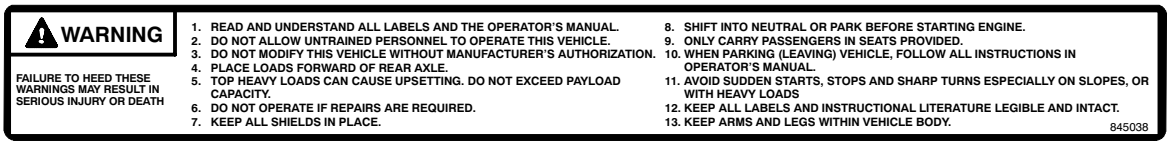
This decal warns the operator that the park brake ***is not*** automatically applied.

This symbol indicates diesel fuel only



Read the Operator's Manual

This decal informs the operator to read and understand the Operator's manual. To prevent injury, they must be familiar with the operation of this product and be fully aware of ***safe*** operating procedures.



Vehicle Operation

This decal informs the operator of proper procedures for safely operating the vehicle. Read this manual completely to become aware of other safety issues and operating procedures which will help you operate this vehicle in a safe and responsible manner.

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VEHICLE IDENTIFICATION NUMBERS

This unit is not a motor vehicle within the definition of the national traffic motor vehicle safety act. It is not designed or manufactured for use on roads, streets or highways. It is not appropriate for such use.
This unit is not meant to be licensed as a motor vehicle.

IMPORTANT!

SPARK ARRESTERS ARE REQUIRED BY CALIFORNIA PUBLIC RESOURCES CODE, SECTIONS 4428-4442, WHEN OPERATING ANY INTERNAL COMBUSTION ENGINE ON HYDROCARBON FUELS, ON FOREST-, BRUSH-, OR GRASS-COVERED LANDS.

NOTICE

- Reference to the ***front, rear, left*** and ***right*** sides of the vehicle are always determined by the ***operator's seated position.***

THE FOLLOWING IDENTIFICATION NUMBERS MUST APPEAR ON ALL CORRESPONDENCE CONCERNING THIS VEHICLE.

The Vehicle Identification Number (VIN), model number and serial number are all printed on the Nameplate/Identification Decal attached to the crossmember under the dash (See Fig. 1).

The serial number and model number are also stamped on the crossmember. It is located to the left of the model and serial no. decals (See Fig. 2).

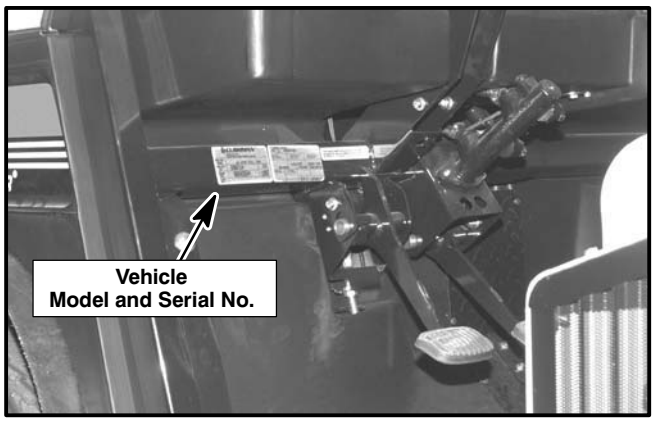


Figure 1
Nameplate / Identification Decal

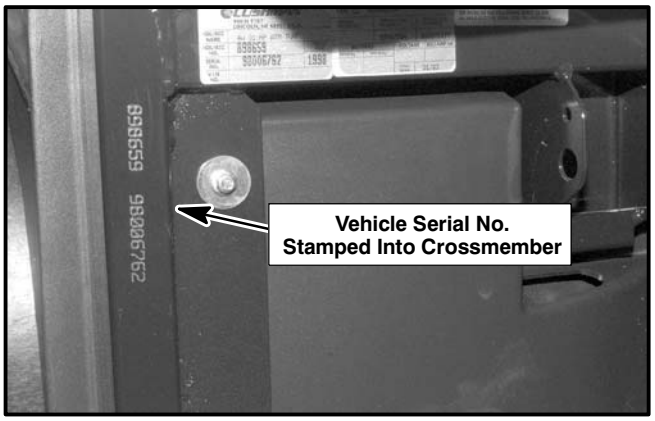


Figure 2
Serial Number And Model Number

ENGINE IDENTIFICATION NUMBERS

Your Cushman Turf-Truckster is equipped with one of three power sources:
A Suzuki K6A 3 cylinder, 4 cycle, liquid-cooled gasoilne powered engine;
a Suzuki 970 4-cylinder, 4-cycle, liquid-cooled gasoline powered engine,
or a
Perkins 103-10, 3-cylinder, 4-cycle liquid-cooled diesel powered engine.

Engine Identification Numbers (con't.)

Each engine has a serial number stamped onto the engine block. The Perkins diesel's serial no. is stamped on a metal plate which is attached to the engine block.

The Engine Serial No. for the Suzuki K6A engine is stamped onto the upper engine block on the left side of the engine.

It's located on top of the engine, beneath the governor bracket and may be partially hidden by the electrical convoluted tubing which passes through that area.

The engine serial no. is also hand printed on the engine cylinder cover (See Fig. 3).

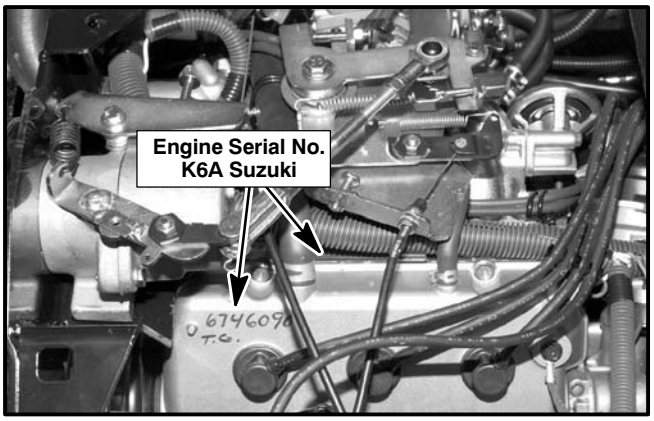


Figure 3
Suzuki K6A Engine Serial Number

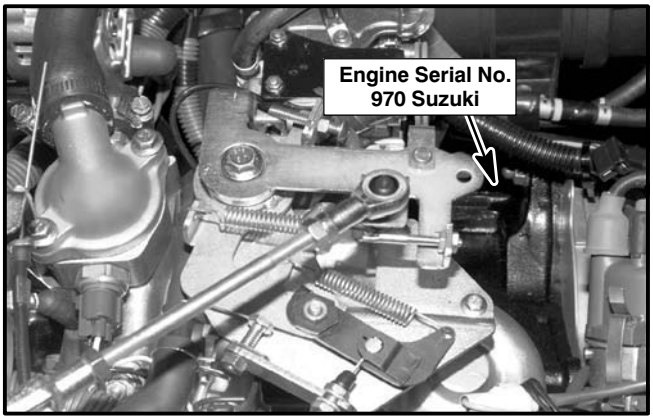


Figure 4
Suzuki 970 Engine Serial Number
(As Viewed From the Drivers Side of Vehicle)

The Engine Serial No. for the Suzuki 970 engine is stamped onto the lower engine block on the right side of the engine.

It's located on the lower engine block beneath the air cleaner.

The 970 engine serial no. is also hand printed on the engine cylinder cover.

The Engine Serial No. for the Perkins Diesel engine is stamped onto a metal plate on the upper engine block on the left side of the engine.

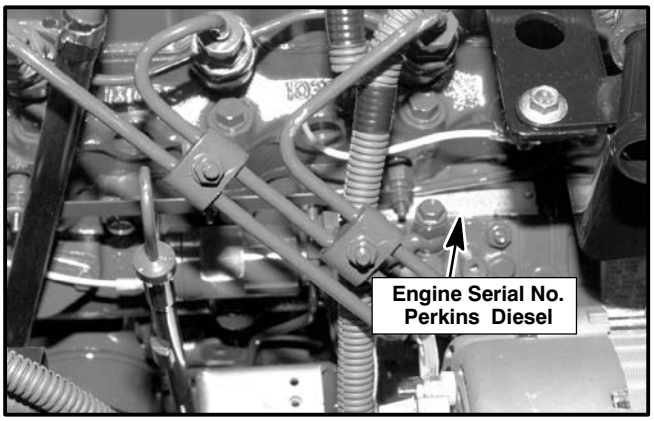


Figure 5
Perkins Diesel Engine Serial Number

SPECIFICATIONS

Specifications subject to change without notice.

Rear Axles: Models 898671, 898673 & 898695 . . . . . 11.16:1 2-speed hypoid differential

Transmission: Models 898671, 898673 & 898695 . . . . . 4-speed manual with low-low (creeper) 1st gear, synchronized in all forward speeds

All turf models are equipped with a hydraulic brake system and a lever operated parking brake integral to the rear brake drums.

CAPACITIES

Fuel Tank . . . . . 6.5 gal. (24.5 L)

Cooling System:

Suzuki K6A . . . . . 3.3 qts. (3.0 L
Suzuki 970 . . . . . 3.3 qts. (3.0 L)
Perkins Diesel . . . . . 5 qts. (4.7 L)

Crankcase (including filter):

Suzuki K6A . . . . . 3.3 qt. (3.0 L)
Suzuki 970 . . . . . 3.7 qt. (3.5 L)
Perkins Diesel . . . . . 3.7qt. (3.5 L)

Transmission (K6A manual) 1.05 qt. (1.0 L);
(970 & diesel manual) . . 1.4 qt. (1.3 L)
(automatic) . . . . . 3.7 qt. (3.5 L)

Differential . (11.16:1) . . . . . 5.2 Pints (2.5 L)

Hydraulic System
Standard hydraulics . . . . . 4 gal. (15.0 L)
Hi-Lo hydraulic accessory . . . . . 7.6 gal. (28.8 L)

TIRES

Front . . . . . 20 x 10.00-10 Multi-Rib
Rear . . . . . 24 x 13.00-12 Titan Ultra Trac

BRAKE FLUID

Use type . . . . . Dot 3

SUSPENSION

Front . . . . . Double A-arm independent with two spring-over-shock absorbers
Rear . . . . . Heavy-duty multiple leaf springs with shock absorbers

FUEL

Gasoline Engines . . . . . Unleaded gasoline 87 Octane or higher

Diesel Engines . . . . . No. 2-D (ASTM D975) (see the Fuel Recommendation Section, Page 20)

LUBRICATION RECOMMENDATIONS

Transmission Fluid
(4-speed manual) . . . . SAE EP 80-90 Gear Lube
(automatic) . . . . . Mercon/Dexron II

Hydraulic System . . . . . Hyd Benz Bio 377

Differential Oil . . . . . SAE EP 80-90 Gear Lube

Pressure Gun Grease . . . . . Lithium Base

Power Steering . . . . . Power Steering Fluid (GM)

BATTERY

Volts 12
BCI Group . . . . . Size 24
Cold Cranking Amps (minimum) 420
Reserve Capacity Minutes (minimum) 70
Ground Terminal Polarity . . . . . Negative

STEERING

14.1 ratio Saginaw power steering and a 14 inch (355.6 mm) steering wheel

ENGINE SPECIFICATIONS

NOTICE

- The engine governor controls are preset to control engine and ground speeds to design limits.

WARNING

- **To prevent premature engine failure and speeds greater than design limits, *NEVER* alter the governor controls in any manner to increase engine speed beyond recommended maximum R.P.M.**

Sound Level (Perkins Diesel):

Pressure Level (right ear) . . . . . dB(A) 79.2 LpA
Pressure Level (left ear) . . . . . dB(A) 79.2 LpA
Sound power level . . . . . dB(A) 95 LWA

Vibration Level (Perkins Diesel):

Whole Body (seat/buttocks) . . . . . .0248 m/s^2
Whole Body (seat/back) . . . . . .0257 m/s^2
Whole Body (floor/foot) . . . . . .0671 m/s^2
Hand/arm (steering wheel/hand) . . . . . .486 m/s^2

Suzuki 970 Engine

Horsepower (SAE hp) 34
Max. Engine Speed . . . . . 3600 RPM
Stroke . . . . . 2.83" (72 mm)
Bore . . . . . 2.58" (65.5 mm)
Displacement . . . . . 59.2 cu in. (970 cm^3)
Compression Ratio 8.8:1
Cylinder Compression . . . . 178 PSI (1,228 kPa)
Engine Rotation (viewed from flywheel) . . . . . Counterclockwise
Valve Clearance (intake) .0031″ cold (0.08 mm)
(intake) .0047″ hot (0.12 mm)
(exhaust) .0039″ cold (0.10 mm)
(exhaust) .0047″ hot (0.12 mm)
Spark Plug Gap . . . . . .032-.035 (0.8-0.9 mm)
Spark Plug Number . . . . . NGK BP5ES
OR Denso W16EX-U
Spark Plug Torque . . 18.5-21.5 lb. ft. (25-30 N·m)
Breaker Point Gap . . . . . .008-.015 (0.2-0.4 mm)
Ignition Timing . . . . . 4-5° BTDC @ 950 RPM
Idle Speed . . . . . 950 ± 50 RPM

Suzuki K6A Engine

Horsepower (SAE hp) 31
Max. Engine Speed . . . . . 4450 RPM
Stroke . . . . . 2.60" (66mm)
Bore . . . . . 2.56" (65mm)
Displacement . . . . . 40.1 cu in. (657 cm^3)
Compression Ratio 10.5:1
Cylinder Compression . . . . 178 PSI (1,228 kPa)
Engine Rotation (viewed from flywheel) . . . . . Counterclockwise
Valve Clearance (intake) .0031″ cold (0.08 mm)
(intake) .0047″ hot (0.12 mm)
(exhaust) .0039″ cold (0.10 mm)
(exhaust) .0047″ hot (0.12 mm)
Spark Plug Gap . . . . . .032-.035 (0.8-0.9 mm)
Spark Plug Number . . . . . NGK DCPR7E
OR Denso XU22EPR-U
Spark Plug Torque . . 18.5-21.5 lb. ft. (25-30 N·m)
Ignition Timing . . . . . 4-5° BTDC @ 950 RPM
Idle Speed . . . . . 950 ± 50 RPM

Perkins Model 103.10 - Spec KD70377

Horsepower (SAE hp) 22.3
Max. Engine Speed . . . . . 3000 RPM
Stroke . . . . . 2.83" (72 mm)
Bore . . . . . 2.9" (75 mm)
Displacement . . . . . 58.2 cu in. (954 cm^3)
Compression Ratio 23:1
Cylinder Compression . . . . 425 PSI (2,932 kPa)
Engine Rotation (viewed from flywheel) . . . . . Counterclockwise
Valve Clearance (intake) .008″ cold (0.2 mm)
(intake) .010″ hot (.25 mm)
(exhaust) .008″ cold (0.2 mm)
(exhaust) .012″ hot (.30 mm)
Spark Plug Gap . . . . . NA
Spark Plug Number . . . . . NA
Spark Plug Torque . . . . . NA
Breaker Point Gap . . . . . NA
Injection Timing . . . . . 22° BTDC @ 1,000 RPM's
Idle Speed . . . . . 950 ± 50 RPM

GAUGES, WARNING LIGHTS and CONTROLS

The following pages contain information which will help you become more familiar with the different gauges and controls used while operating this vehicle.

TACHOMETER (1)

Indicates the engine speed (x 100) in revolutions per minute (See Fig. 6).

HOUR METER (2)

The hour meter (See Fig. 6) records the number of hours the engine has run. The hour meter runs when the key switch is ***"ON" even if the engine is not running.***

FUEL GAUGE (3)

The fuel gauge (See Fig. 6) indicates the amount of fuel remaining in the fuel tank.

OIL PRESSURE WARNING LIGHT (4)

The ***red*** oil pressure light (See Fig. 6) indicates oil pressure is too low for engine operation.

VOLTMETER (5)

The voltmeter (See Fig. 6) indicates the voltage level of the battery. Under normal operation it will indicate 12 to 18 volts (meaning the battery is being properly charged). A reading below 12 volts indicates the battery is being drained, this may **indicate a malfunction in the charging system which should be checked immediately.**

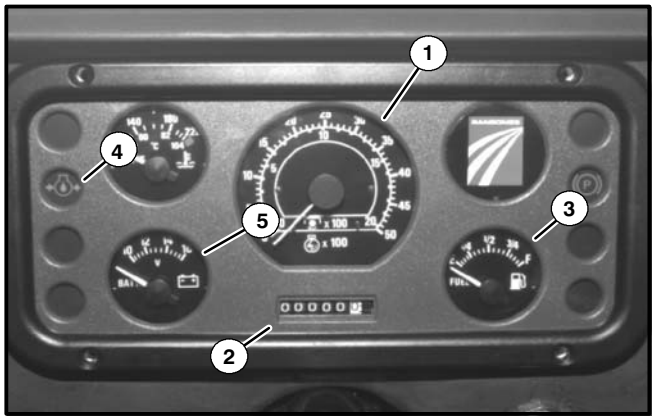


Figure 6
Dash Panel Identification

GLOW PLUG INDICATOR (8) (DIESEL ONLY)

The glow plugs must be preheated before the engine can be started. The glow plug indicator is wired in the glow plug circuit and indicates when the glow plugs are being heated and when the engine is ready to start (See Fig. 7).

BRAKE FLUID LEVEL WARNING LIGHT (6)

This light (See Fig. 7) indicates the brake fluid level is low.

WATER TEMPERATURE GAUGE, AND OVERHEAT WARNING BUZZER (7)

The purpose of this system is to warn the operator if the engine temperature exceeds the normal operating range.

If the water temperature gauge (See Fig. 7) raises above the 230° F (110°C mark), a heat sensor is activated causing the overheat warning buzzer to sound.

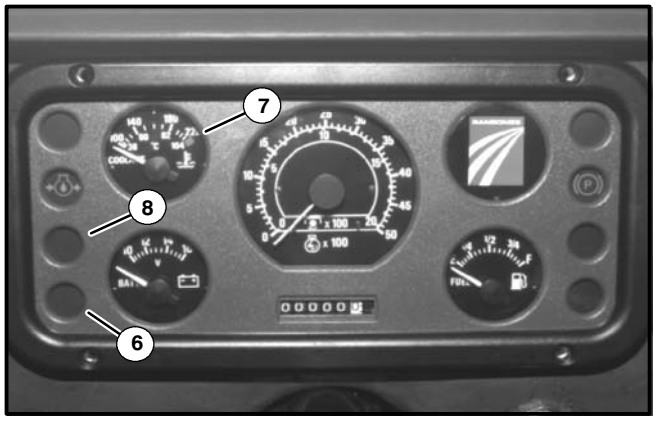


Figure 7
Dash Panel Identification

ACCESSORY POWER PLUG

A power port is available for plugging in laptop computers, cellular phones and other accessory items which require a 12-volt plug-in (See Fig. 8).

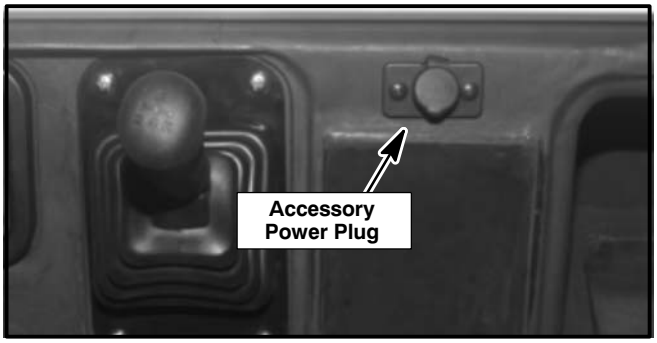


Figure 8
Accessory Power Plug

IGNITION SWITCH

1. **ACCESSORY POSITION** – Allows use of various instruments and accessories without causing ignition system damage.
2. **OFF POSITION** – Prevents function of all vehicle electrical power operated features except for the flasher (hazard) lights, and the radiator cooling fan. **Switch must be in OFF position for key removal**.
3. **ON POSITION** – Key is placed in this position for normal engine operation.
4. **START POSITION** – Hold key in start position to engage engine starter. Upon release, key will return to ON position automatically. **Key must be returned to the *OFF* position before the starter can be reactivated.**

NOTICE

- ***DO NOT*** turn key to START position with vehicle engine running. Damage to flywheel teeth may result.

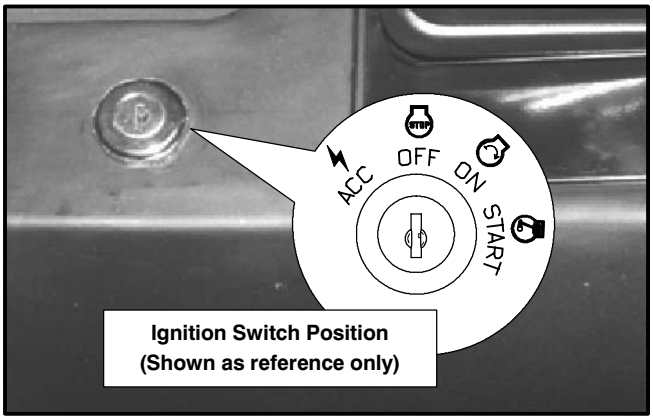


Figure 9
Four Position Ignition Switch

DANGER

- ***Never*** **turn the key to the START position unless the clutch pedal is depressed (pushed down) or the gear selector is in neutral. If the vehicle is *in any gear other than neutral,* and the clutch pedal *is not* depressed when the engine is started, the vehicle may *lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.**
- If the engine ***will*** start ***without depressing*** the clutch pedal the clutch interlock system should be repaired ***immediately*** by your authorized Cushman dealer.

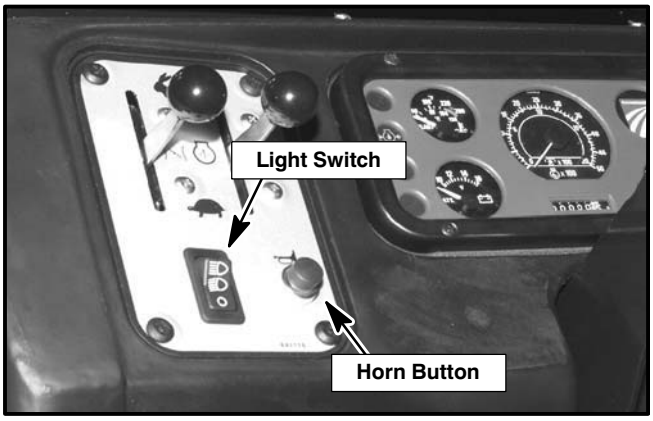


Figure 10
Horn Button and Light Switch Location

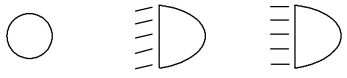
HORN BUTTON

The horn button is located to the left of the steering wheel, below the dash panel. Depress to sound horn. Horn will not sound when the ignition switch is in the ***OFF*** position.

LIGHT SWITCH

The light switch is used to turn the headlights and taillights on. The switch has three detents, OFF, DIM, and BRIGHT. Push switch up one detent for DIM or push switch up two detents for BRIGHT.

HEADLIGHT OPERATION SYMBOLS



OFF | **DIM (1st Detent)** | **BRIGHT (2nd Detent)**

CHOKE (Suzuki 970 engines Only)

The choke is used to assist the starting of a cold engine. Pull ***up*** on the choke knob ***and hold*** in the full or partially open position. When the engine has warmed up and is running smoothly release the choke knob (the choke knob is spring loaded in the open position, it will return to its normal position when released) (See Fig. 11).

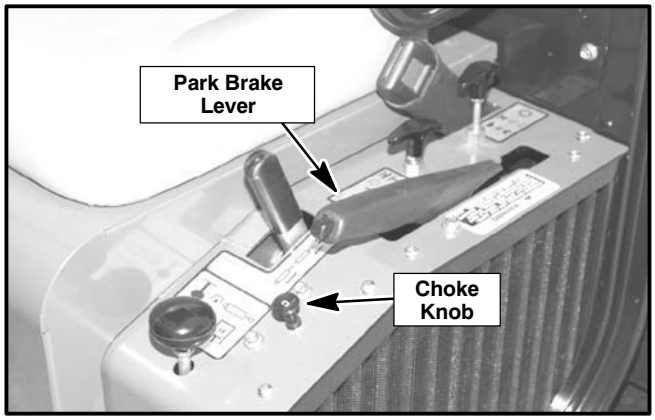


Figure 11
Park Brake Lever and Choke Knob

PARKING BRAKE LEVER

- Parking brakes are not automatically applied. Make sure and set the park brake when leaving the vehicle.

The park brake lever is located to the left side of the drivers seat. To engage the brake, pull up on the lever until park brake is applied.

To release, while slightly pulling up on the handle, push the button at the end of the lever and while holding the button in, lower the lever to it's original position (See Fig. 11).

FOOT CONTROL PEDALS

CLUTCH PEDAL (Manual Transmission Only)

The clutch pedal has to be ***depressed before*** shifting into any of the gears. The clutch has a **Safety Feature** called a **"clutch interlock switch"**. This switch prevents the starter from operating unless the clutch is disengaged (the clutch pedal is depressed).

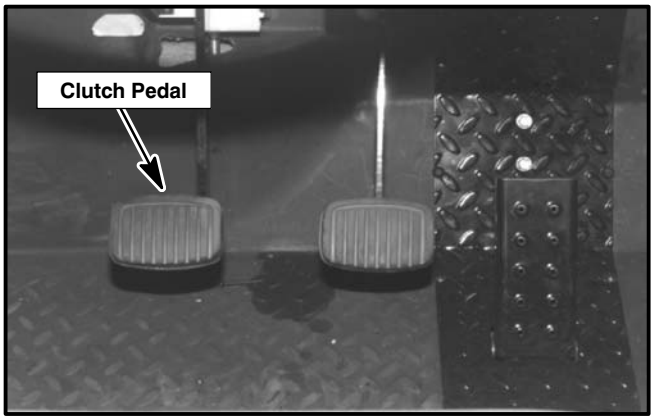


Figure 12
Clutch Pedal Location

If the engine ***will*** start ***without depressing*** the clutch pedal:

- ***DO NOT*** operate the vehicle. The clutch interlock system should be repaired ***immediately*** by your authorized Cushman dealer.

The clutch pedal has to be ***depressed:***

- before starting the vehicle
- before shifting into any of the gears and
- before coming to a complete stop

DANGER

- ***Never*** **start the engine unless the clutch pedal is depressed (pushed down). If the vehicle is *in any gear other than neutral,* with the clutch pedal *not* depressed and the engine is started, the vehicle will *lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.**

FOOT THROTTLE (ACCELERATOR) PEDAL

Push pedal down to open throttle ***(increase speed),*** release to return throttle to idle position ***(decrease speed).***

SERVICE BRAKE PEDAL

Depress the pedal to slow or stop the vehicle.

If the brakes ***DO NOT*** stop the vehicle properly, the brakes must be adjusted or repaired.

CAUTION

- **Improper maintenance of brake system can result in the operator losing control of vehicle.**
- **Loads not properly secured can quickly shift causing personal injury or vehicle damage if the brakes are applied too hard and fast.**

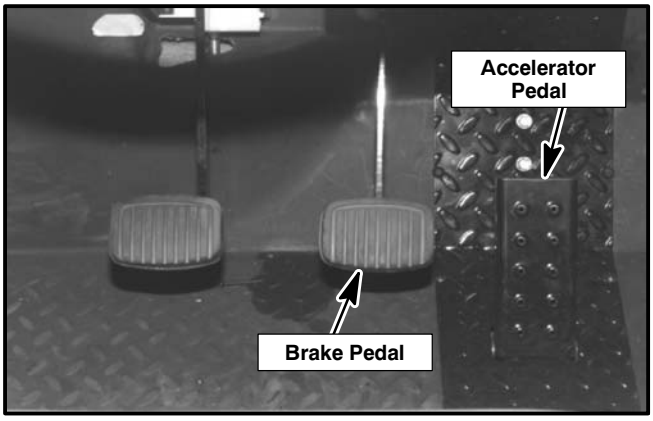


Figure 13
Foot Control Pedals

GEAR SELECTOR

Manual Transmission

The gear selector has an "H" pattern as shown in Figure 14. There is also a shift-pattern design molded into the top of the gear selector handle.

Remember, ***before*** shifting to ***any*** gear you have to ***depress*** the clutch pedal ***before*** you shift to that particular gear.

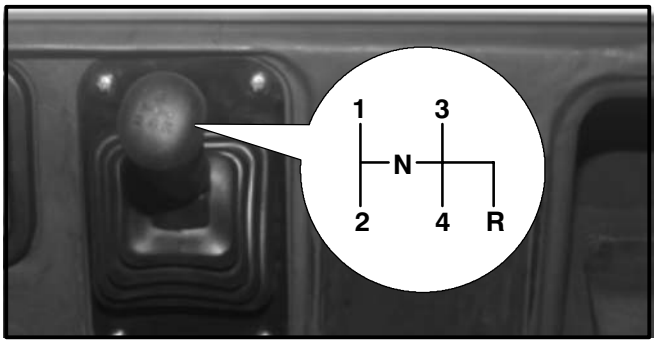


Figure 14
Shift Pattern (Manual Transmission)

Automatic Transmission

The gear selector has the gear selections listed on the left side of the shifter handle. ***Some units may have the gear selections on the right side*** as shown in Fig. 15.

Push in the selector lever button when shifting in or out of **"P"** Park , into **"N"** Neutral or when down shifting to **"2"** Second or **"L"** Low from **"D"** Drive.

It is not necessary to use the button when shifting up from **Low**, **Second** or **Drive** to **Neutral,** from **Reverse (R)** to **Neutral** or from **Neutral** to **Drive.**

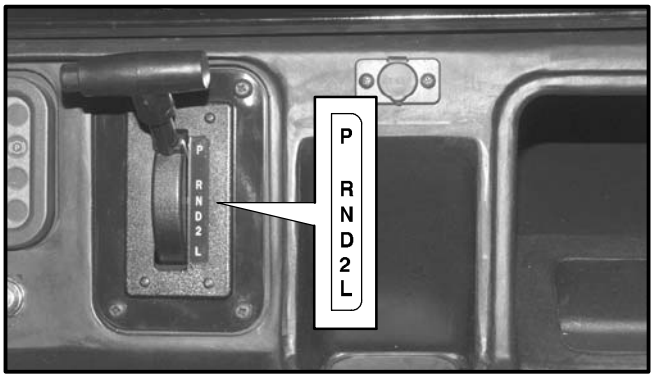


Figure 15
Automatic Transmission Gear Selector

SERVICE and MAINTENANCE

***T**hink **A**head! **W**ork **S**afely!*

WARNING

- **When replacement parts are required, use genuine Cushman parts or parts with equivalent characteristics including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or bystanders.**
- **Never attempt to perform service or maintenance functions on this vehicle if you are UNTRAINED or UNAUTHORIZED. Improper maintenance can cause hazardous conditions. See your authorized CUSHMAN dealer for necessary maintenance and service.**
- **Always replace any warning decal that becomes hard to read.**
- **To reduce risk of fire, always keep the engine free of excessive grease.**

ENGINE MAINTENANCE

Keep your engine clean.

If dirt has accumulated on the engine, it should be washed with a non-flammable solvent or strong detergent.

When washing becomes necessary, it can be carried out simultaneously when servicing the vehicle.

In order to maintain reliable service from your engine, a regular check-up and maintenance schedule should be followed.

The following maintenance information covers basic engine service only.

For extensive service and repairs, we recommend contacting the authorized Cushman dealer nearest you.

Proper maintenance will prolong the engine's life and avoid premature overhaul.

ENGINE BREAK IN

The service life of your engine is dependent upon how your engine is operated during the first 50 hours of operation.

ALWAYS: • Use care not to overload your engine
• Maintain engine oil level
• Maintain cooling system

WARNING

- **To prevent premature engine failure and speeds greater than design limits, *NEVER* alter the governor controls in any manner to increase engine speed beyond recommended maximum R.P.M.**

ACCESS TO ENGINE

Never remove or install the engine cover while the engine is running. The engine cover is a ***machinery guard*** and its removal exposes you to moving parts. Keep hands, hair and clothing away from flywheel, radiator cooling fan, alternator fan, engine belts, pulleys and air intake.

For servicing the engine and related components, the engine cover can be tilted forward or removed.

To gain access to the engine, push the engine cover latch to the rear of the unit, tilt cover forward. The latch is located at the center rear on top of the engine cover (between the seat cushion(s) and backwall).

Access to Engine (con't.)

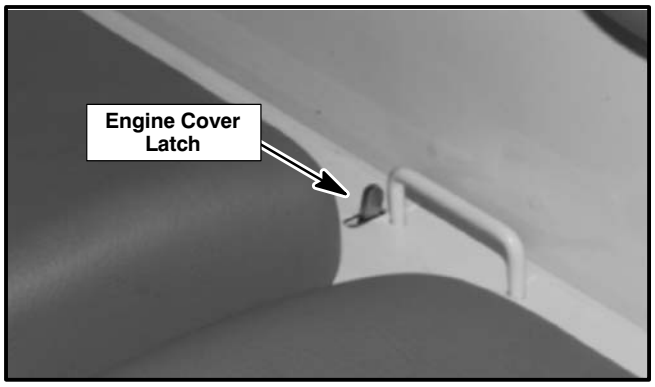


Figure 16
Engine Cover Latch

To gain access to the engine on a **CE compliant model,** insert the key into the locking handle located at the side of the engine cover latch, turn the key to allow the latch to be pushed back (the locking handle can also be used as an accessory on any of the other turf vehicles).

When replacing the engine cover, make sure the retaining tabs, located at the front corners of the engine cover, are inserted into the slots in the floorboard.

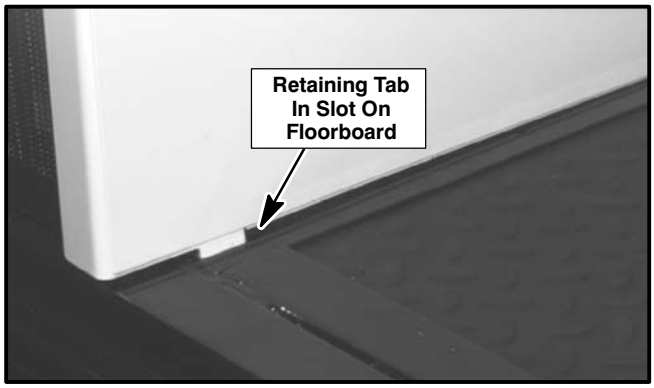


Figure 17
Engine Cover Retaining Tab

WARNING

- **Failure to latch the seat properly can result in the engine cover tipping forward causing loss of control of the vehicle and possible personal injury.**

PRE-STARTING CHECKLIST

Before starting your engine for the first time; after a prolonged shutdown; and before each days use, check the following:

1. Check the engine oil level.
2. Check the radiator coolant level and radiator intake screen.
3. Check the fuel level.
4. Check tire pressure.
5. Check brake fluid level.

If the diesel engine is being started for the first time or is being started after a prolonged shutdown it will be necessary to purge the fuel system (see Purging the Fuel System, Page 22).

ENGINE OIL LEVEL

Always turn the engine ***off*** when checking the oil level. **Oil level should be checked daily.**

NOTICE

- Make sure vehicle is on level surface and the park brake is applied.

Engine Oil Level (con't.)

Remove the dipstick and wipe with a clean rag, reinsert the dipstick until it contacts the oil tube, remove dipstick and read the oil level.

The oil level should always between the **ADD** and **FULL** mark on the dipstick. ***DO NOT OVER FILL.***

If the engine has recently been running, allow time (with the engine turned off) to let the oil settle to obtain a correct level reading.

If the oil level is below the add mark, add an **SAE 10W-30** oil to bring the level up between the marks (refer to the recommended oil weights in the chart for your particular climate range).

Remove the oil fill cap and add the appropriate amount of engine oil. Use the dip stick to check the level again, if oil level is sufficient, replace oil fill cap.
DO NOT OVERFILL

Engine Oil Capacity

Suzuki K6A . . . . . 3.3 qts. (3.0 L)

Suzuki 970 . . . . . 3.7 qts. (3.5 L)

Perkins Diesel . . . . . 3.7 qts. (3.5 L)

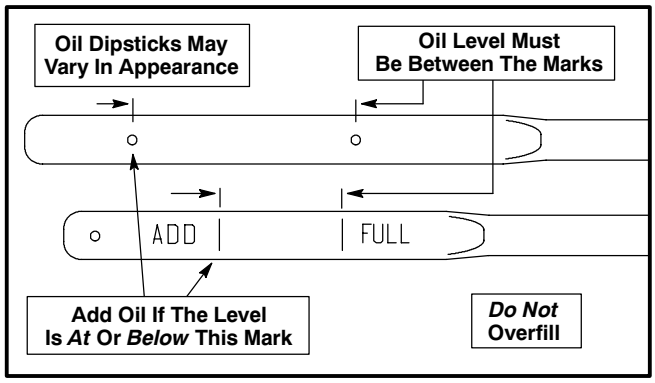
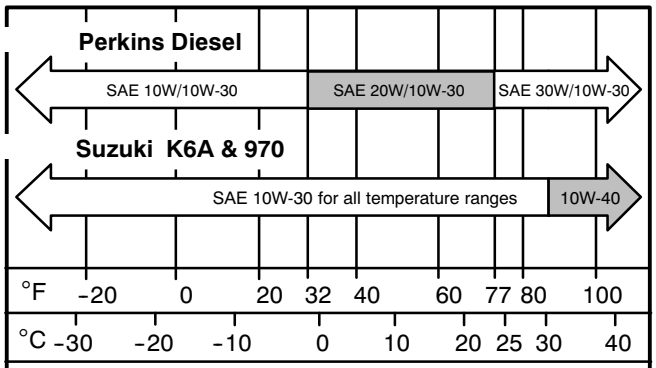


Figure 18
Oil Level Reading



Temperature Range Anticipated Before Next Oil Change

Using multi grade oils (5W-20, 10W-30, and 10W-40) will increase oil consumption. Check oil level more frequently when using them.

NOTICE

- If you notice the ***oil pressure warning light*** coming on, **STOP** the vehicle and check for problems.

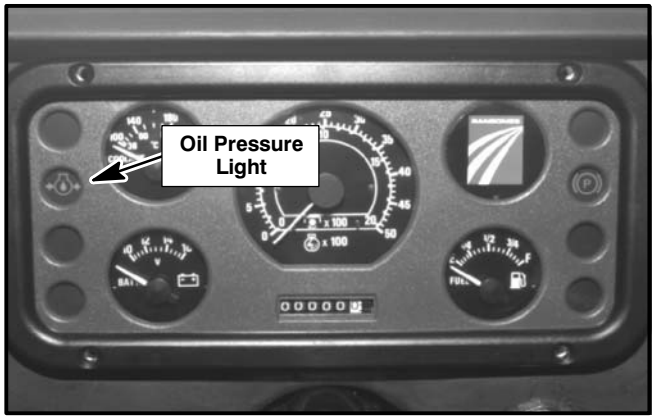


Figure 19
Oil Pressure Warning Light

Engine Oil Replacement Filters:

Suzuki K6A . . . . . Order Part No. 16510-82703
Suzuki 970 . . . . . Order Part No. 16510-82703
Perkins Diesel . . . . . Order Part No. 842553

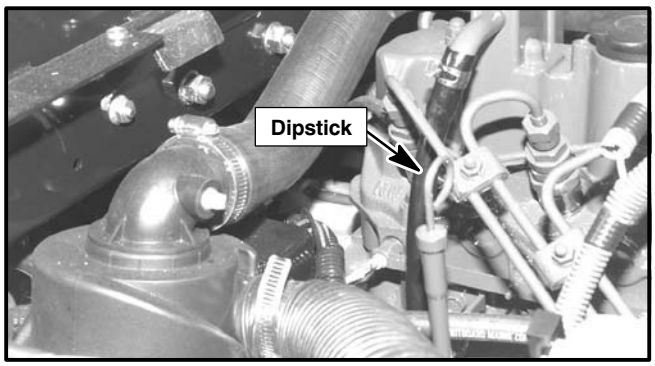


Figure 20
Dipstick Location, Perkins Diesel Engine

Engine Oil Level (con't.)

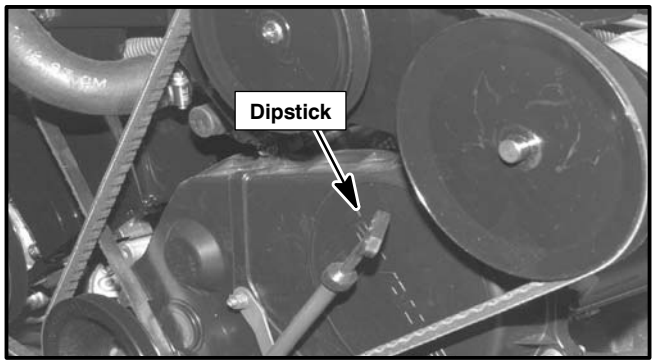


Figure 21
Dipstick Location, K6A Suzuki Engine

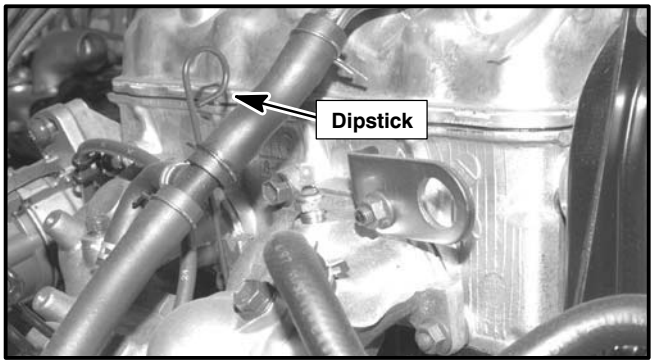


Figure 22
Dipstick Location, 970cc Suzuki Engine

WATER TEMPERATURE GAUGE AND OVERHEAT WARNING BUZZER

The purpose of this system is to warn the operator if the engine temperature exceeds the normal operating range.

If the water temperature gauge raises above the 230° F (110° C) mark, a heat sensor is activated causing the overheat warning buzzer to sound.

CAUTION

- **Be careful when opening the engine cover, when raising the seat and when cleaning the chaff from around the intake screen. Parts that are metal may be *hot* to the touch.**
- **The vehicle seat is a machinery guard. To avoid injury, use extreme caution and *DO NOT* place hands or clothing near moving parts (belts, fan, etc.).**

During operation (driving), if the water temperature gauge shows **230° F (110° C) *or over*,** and/or the overheat warning buzzer sounds, follow this procedure:

1. ***STOP*** the vehicle, ***DO NOT*** STOP THE ENGINE.
2. ***Immediately*** disengage any accessories that are operating.
3. Slow the engine to a "fast idle".
4. Remove any dirt, chaff, debris, etc. from the radiator intake screen located on the right side of the engine cover (the intake screen and surrounding area will be hot, use caution when removing debris from this area).
   - Failure to:
     (1) heed the overheat warning and
     (2) maintain cooling system, will cause permanent damage.

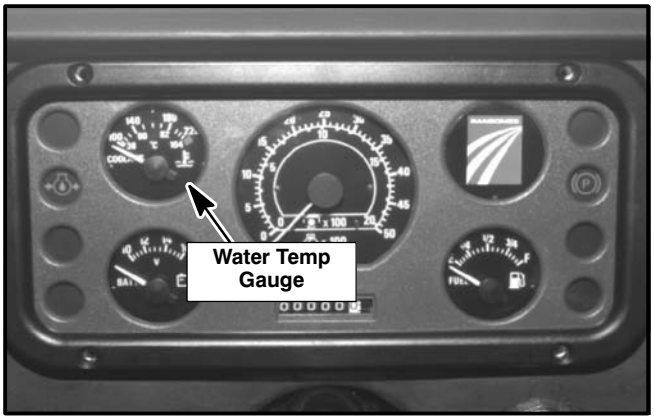


Figure 23
Water Temperature Gauge

Water Temperature Gauge and Overheat Warning Buzzer (con't.)

The temperature indicator on the gauge should go down within approximately 30 seconds after the intake screen is cleaned. If the temperature **does not go down, *STOP THE ENGINE*** and check the following areas:

WARNING

- **ALWAYS make sure the engine is stopped and cool before removing the radiator cap or before performing any service or maintenance on or around the engine area. To prevent scalding by hot water, *NEVER* remove the radiator cap while radiator is hot.**
- **The cooling system is under pressure, if a leak is present, be careful when raising the seat or when opening the engine cover. *Hot* coolant can be sprayed causing personal injury.**

1. Raise vehicle seat and visually check to see if electric radiator fan is operating and check to determine if there may be a leak in the cooling system (allow ample time for the engine and surrounding area to cool before attempting to perform any service or maintenance).
2. Check the radiator fins and screen. If they are dirty, they ***must*** be cleaned. **Engines damaged due to overheating caused by plugged radiators *WILL NOT* be warranted.**
3. Check oil engine level.
4. Check radiator and coolant reservoir levels.

Also refer to page 37 for Dash Panel Bulb Replacement.

RADIATOR COOLANT LEVEL

The vehicle is equipped with a cooling radiator and an electric cooling fan.

WARNING

- **The cooling fan is thermostatically controlled and *may start at any time, even with the ignition key in the OFF position, DO NOT* attempt service without first disconnecting the negative (–) battery cable or without first removing the fan fuse.**
- **The cooling system is under pressure, if a leak is present, be careful when raising the seat or when opening the engine cover. *Hot* coolant can be sprayed causing personal injury.**

To provide proper engine cooling it is important to keep the cooling system properly maintained. Part of maintaining the system involves making sure the intake screen, radiator fins and surrounding engine areas remain free of debris.

- ***DO NOT*** obstruct or cover the intake screen in front of the radiator. Keep the fins and radiator screens clean.
- If the radiator fins or intake screen become dirty, air cannot circulate well enough to cool the engine sufficiently, therefore you risk the chance of the engine overheating. **Engines damaged due to overheating caused by plugged radiators *WILL NOT* be warranted.**

Radiator Warning Decal

Fan Warning Decal

Radiator Coolant Level (con't.)

NOTICE

- Clean the radiator fins with compressed air. If water is used to clean the radiator, use compressed air to blow all the water from the fins. Water left between the fins will collect dirt and plug the radiator, this will reduce the amount of air flow to properly cool the engine. **Engines damaged due to overheating caused by plugged radiators *WILL NOT* be warranted.**

The cooling system level and the intake screen should be checked every day before vehicle operation.

Along with the daily pre-start list, you should also:

1. Check the radiator and coolant hoses for leaks and faulty connections, repair as necessary.
2. Inspect the engine belts for fraying or cracking and check the engine for loose hardware.
3. Check the coolant reservoir (there should be approximately four (4) inches (102 mm) of coolant in the reservoir).
4. Remove the radiator cap and check the coolant level, the coolant should be at, or with-in a 1/4" (6 mm) from the bottom of the filler port (if coolant is needed, add a 50/50 anti-freeze/water mixture following the procedures stated below).

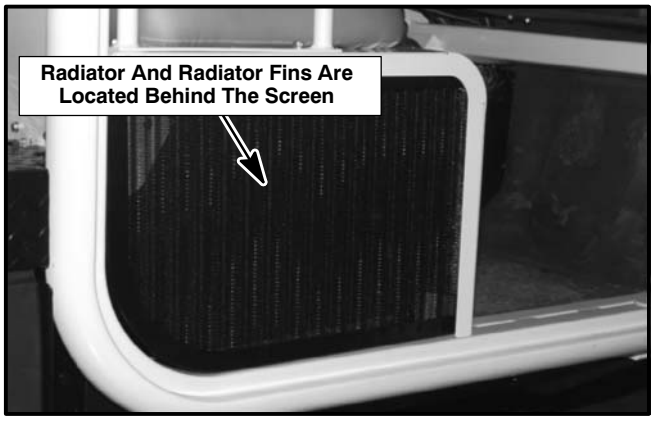


Figure 24
Intake Screen (Right Side of Vehicle)

ADDING ANTI-FREEZE TO THE COOLING SYSTEM

The cooling system should be drained and refilled every **400 hours** or **nine (9) months.**

Make a 50/50 mixture of anti-freeze and water in a separate container before adding coolant to the radiator. ***Never*** add straight anti-freeze to the radiator, the mixture **must *never*** be more than 50% anti-freeze.

Cooling System Capacity:

Suzuki K6A Engine: . 3.3 qts. (3.0 L)

Suzuki 970 Engine: . . 3.3 qts. (3.0 L)

Perkins Diesel: . . . . . 5.0 qts. (4.7 L)

Unless the radiator is very low, always add coolant to the overflow reservoir not to the radiator.

With the park brake applied and the gear selector in neutral or park (automatic transmissions), start the engine and let idle.

WARNING

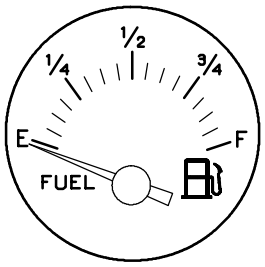
- **ALWAYS make sure the engine is stopped and cool before removing the radiator cap. To prevent scalding by hot water, *NEVER* remove cap while radiator is hot.**

Remove the overflow reservoir cap, add the anti-freeze mixture to the overflow bottle until the coolant level reaches approximately 4" (102 mm) in the bottle, replace reservoir cap.

If the radiator level is very low, add the anti-freeze mixture directly to the radiator until it reaches approximately 1/4" (6 mm) from the bottom of the filler neck, then start the engine and add mixture to the overflow reservoir until proper level is reached.

FUEL LEVEL

1. Check fuel level in fuel tank. Turn the ignition switch to the ON position, fuel level will be determined by how far the fuel gauge needle rises. The illustration below shows the various levels for reading the fuel gauge.
2. Fuel tank capacity is **6.5 gal. (24.5 L).** Fill if necessary using the following fuel recommendations:
   - **Gasoline Engines** - Unleaded gasoline with an 87 or higher Octane reading.
   - **Diesel Engines** - Diesel Fuel No. 2-D (ASTM D975) ***Do Not*** use Aviation Fuel JP4



Fuel Tank Volume

The fuel tank is located on the right side of the vehicle in front of the rear tire.

For vehicles using diesel fuel, Use #1 diesel fuel (ASTM No. 1D) when temperature is 20° F (-7° C) or below: use #2 diesel fuel (ASTM No. 2D) when temperature is above 20° F (-7° C).

If No. 1D is not available, a ***winterized*** blend of No. 1D and No. 2D may be available. This blended fuel is usually called No. 2D and may be used in colder climates.

Never use No. 2D at temperatures below 20° F (-7° C) unless you are sure it has been ***winterized.*** Cold temperatures may cause it to thicken which will keep your vehicle from running.

WARNING

- **Remove fuel cap slowly. Fuel may be under pressure. Spray may cause serious injury.**
- **Engine fuels are extremely flammable and highly explosive under certain conditions.**
- ***NEVER* remove the fuel tank cap or attempt to refuel the unit while the engine is running.**
- ***NEVER* refuel indoors. *NEVER* smoke while refueling.**
- ***ALWAYS* wipe up spilled fuel immediately.**
- ***NEVER* operate the unit without an approved cap on the fuel tank filler opening.**

GASOLINE CONTAINING ALCOHOL

We ***DO NOT*** recommend the use of ***ALCOHOL*** bearing fuels in any of our products. The use of these fuels may create a potential safety hazard.

WARNING

- **Gasoline containing ALCOHOL can cause deterioration of some non-metallic materials in the fuel system.**
- **Fuel hoses must be inspected frequently and replaced if excessive stiffness, deterioration or fuel leakage is found.**
- **Gasoline containing ALCOHOL will attract and hold moisture inside fuel tanks. Moisture may cause corrosion of metallic parts within the fuel system.**
- **Fuel leakage from a fuel system can occur while the system is in use, in transit, or in storage. Such leakage can contribute to an explosion or fire, causing serious bodily injury or death.**

TIRE PRESSURE

1. Check all tires for proper inflation. Keep tires inflated to the specifications corresponding to that particular tire size. Air pressure needed is determined by the payload carried. Adjust pressure as required. Lower pressure will help avoid leaving tire marks in soft turf. Higher pressures may be required for heavy loads. ***NEVER*** exceed the maximum pressure indicated on the tire.

TIRE SIZE	TIRE PRESSURE
20-8.00 X 10 (4 PLY)	20 PSI (138 KPA)
20-10.00 X 10	20 PSI (138 KPA)
24-13.00 X 12	15 PSI (110 KPA)

NOTICE

- Improper inflation will shorten the life of your tires considerably. Fill tires with care. Use a pressure gauge before connecting an air hose to a partly inflated tire. **Due to the low air volume needed, over-inflation may be reached in a matter of two or three seconds.**

POWER STEERING

The power steering reservoir is located on the right side of the engine, below and to the right of the alternator.

The level in the reservoir should be **checked after the *first 35 hours*** and then **again *after another 35 hours*,** after that the level should be **checked every 100 hours.** Use GM power steering fluid to maintain the correct fluid level.

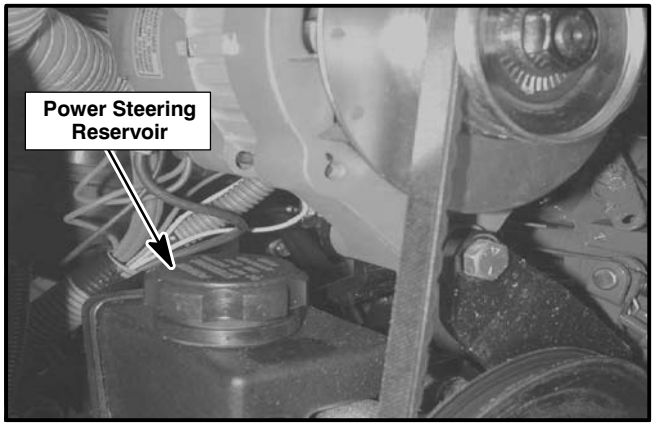


Figure 25
Power Steering Reservoir

Remove the power steering reservoir cap. When checking the fluid level for the first time at the beginning of the day, the fluid level should be at the “cold” mark on the dipstick. When checking the fluid level after the engine has been running and the fluid is warm, the level should read between the “cold” and “hot” marks.

WARNING

- **Before servicing or doing any maintenance work around the engine area, make sure the engine has had time to cool. Serious burns can result if the engine and surrounding area is hot.**

STARTING THE ENGINE (Gasoline Engines)
Manual Transmission

1. Make sure the parking brake is applied (the parking brake should have been applied when the vehicle was last parked).
2. Turn the ignition key to the ON position and observe the warning lights and gages (some of the warning lights will remain on until the engine has started and is running).

Starting the Engine con't.

3. Move the gear selector to "NEUTRAL".
4. Push clutch pedal down **(starter will not operate unless clutch pedal is pushed down).** The clutch interlock switch prevents the starter from operating unless the clutch is disengaged (the clutch pedal is depressed).
   If the engine ***will*** start ***without depressing*** the clutch pedal ***DO NOT*** operate the vehicle. The clutch interlock system should be repaired ***immediately*** by your authorized Cushman dealer.

DANGER

- ***Never*** **turn the key to the START position unless the clutch pedal is depressed (pushed down) or the gear selector is in neutral. If the vehicle is *in any gear other than neutral,* and the clutch pedal *is not* depressed when the engine is started, the vehicle *may lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.**

5. Turn and hold ignition key in the START position to engage engine starter, release key when engine starts (upon release, the key will automatically return to the ON position).
   - If the engine does not start after operating starter for 10 seconds, stop the starter. Wait for 30 seconds, then try to start the engine again.
   - The starter motor should never be run for more than 30 seconds.
6. Allow engine to warm-up before driving the vehicle (always idle and warm-up the engine for at least one minute).

STARTING THE ENGINE (Gasoline Engines)

Automatic Transmission

1. Apply the park brake (the parking brake should have been applied when the vehicle was last parked).
2. Make sure the gear selector is in Park **"P"** (engine ***will not*** start if gear selector is in **"R", "D", "2",** or **"L"**).
   If the engine ***will*** start when the gear selector is in **"R", "D", "2",** or **"L"** ***DO NOT*** operate the vehicle. The vehicle should be repaired ***immediately*** by your authorized Cushman dealer.
3. Turn the ignition key to the ON position and observe the warning lights and gages (some of the warning lights will remain on until the engine has started and is running).

DANGER

- ***Never*** **turn the key to the START position unless the gear selector is in "Park" or neutral. If the vehicle is *in any gear other than Park or neutral,* and the engine is started, the vehicle *may lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.**

4. Turn and hold ignition key in the START position to engage engine starter, release key when engine starts (upon release, the key will automatically return to the ON position).
   - If the engine does not start after operating starter for 10 seconds, stop the starter. Wait for 30 seconds, then try to start the engine again.
   - The starter motor should never be run for more than 30 seconds.
5. Allow engine to warm-up before driving the vehicle (always allow at least one minute for the engine to warm-up).

STARTING THE ENGINE (Diesel Engines)

Manual Transmission

The diesel engine uses glow plugs to pre-heat the combustion chamber and makes cold engines start easier.

When starting a new diesel engine for the ***first time,*** or ***after prolonged storage,*** or i***f the fuel tank is allowed to run dry,*** the fuel system **must be purged** before attempting to start the engine (refer to Purging the Diesel Fuel System, Page 22 of this manual).

When starting the vehicle for the ***first time during the day*** or ***when the engine has cooled,*** you will need to pre-heat the glow plugs in order to start the engine.

If the engine has been running and is still hot, ***it is not necessary*** to pre-heat the glow plugs before starting the engine.

1. Apply the park brake (the parking brake should have been applied when the vehicle was last parked).
2. Move the gear selector to “NEUTRAL”.
3. Push clutch pedal down **(starter will not operate unless clutch pedal is pushed down).** The clutch interlock switch prevents the starter from operating unless the clutch is disengaged (the clutch pedal is depressed).
   If the engine ***will*** start ***without depressing*** the clutch pedal ***DO NOT*** operate the vehicle. The clutch interlock system should be repaired ***immediately*** by your authorized Cushman dealer.

DANGER

- ***Never*** **turn the key to the START position unless the clutch pedal is depressed (pushed down) or the gear selector is in neutral. If the vehicle is *in any gear other than neutral,* and the clutch pedal *is not* depressed when the engine is started, the vehicle *may lurch* forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.**

4. Turn the ignition key to the ON position. Note the pre-heat light at the lower left of the instrument panel.
   The light will come on when the ignition switch is turned to the “ON” position. When the pre-heat light goes off, turn the ignition key to the “START” position.
   Proper pre-heating time required is approximately 15 seconds. Pre-heating will take longer (approximately 30 seconds) when outside temperature falls below 32° F (0° C).
   Preheating time should never last more than 2 minutes or the life of the glow plugs will be shortened.

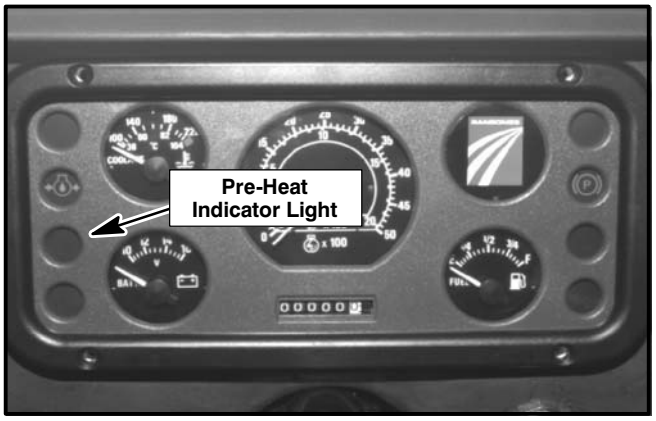


Figure 26
Pre-Heat Indicator Light (Diesel Models Only)

5. Hold ignition key in the START position to engage engine starter, release key when engine starts (upon release, the key will automatically return to the ON position).

- If the engine does not start after operating starter for 10 seconds, stop the starter. Wait for 30 seconds, then try to start the engine again.
- The starter motor should never be run for more than 30 seconds.
- After the engine has started, make sure the oil pressure warning and service brake warning lights go off.

Starting the Diesel Engine con't.

6. Allow engine to warm-up before driving the vehicle (always idle and warm-up the engine for at least one minute)

   Check for abnormal noises such as knocking and excessive vibration

   Knocking sounds will be heard while the engine is cold, during quick acceleration and while idling.

   Knocking sounds ***will not*** be heard during normal operation.

   Confirm the exhaust smoke is seen as follows:

   While engine is cold: White smoke
   When engine is warm and during normal operation: Almost smokeless
   When engine is heavily loaded: Some black smoke

NOTICE

- ***DO NOT*** use ether or starting fluid with diesel engines. Severe engine damage will occur.

Starting under sub-freezing conditions:

- Make sure correct weight engine oil is used.
- Make sure the battery is fully charged.
- Pre-heat glow plugs for the correct length of time.
- Make sure cooling system is tested safe for the ambient temperature.

PURGING THE DIESEL FUEL SYSTEM

The fuel system **must be purged** when:

- Starting a new diesel engine for the first time
- After prolonged storage
- The fuel tank is allowed to run dry
- The fuel filter and/or fuel lines have been loosened, removed or replaced

Purge the fuel system using one of the procedures as follows:

PURGING FUEL SYSTEM USING A JUMPER WIRE

This method allows the fuel pump to run *continuously* when purging the system.

1. Turn the ignition key to the ***off*** position.
2. Disconnect the white/red wire form the starter coil.

WARNING

- **Failure to remove this wire may result in the starter engaging causing the vehicle to move. This movement could result in personal injury and/or property damage.**

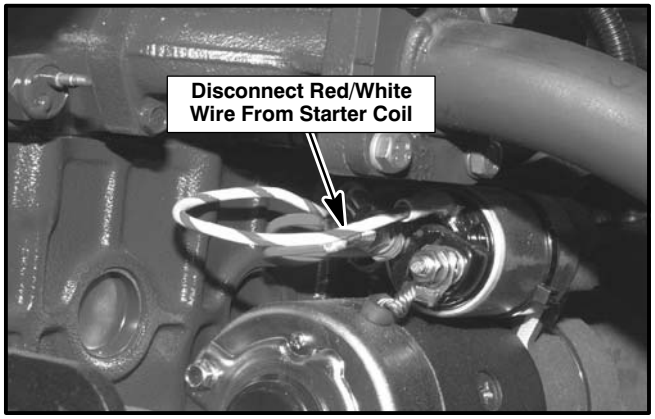


Figure 27
Purging Diesel Fuel System

Purging the Diesel Fuel System (con't.)

3. Clip one end of a jumper wire to the **EXC** terminal on the back of the alternator as shown in Figures 28 & 29 (this terminal will have a green wire connected to it).
4. Clip the other end of the jumper wire to the "I" terminal on the starter solenoid (See Figs. 28 & 29).

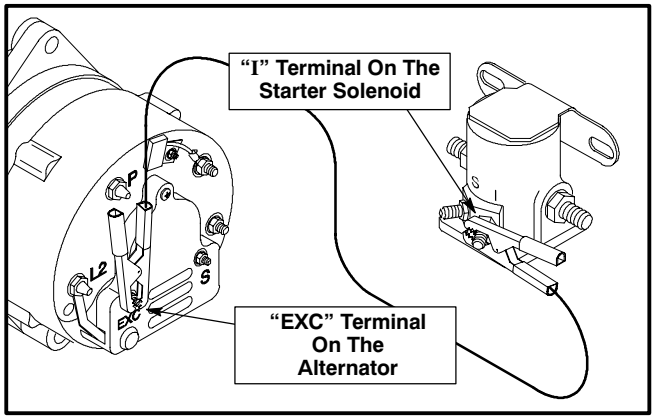


Figure 28
Connect Jumper Wire to Alternator & Solenoid

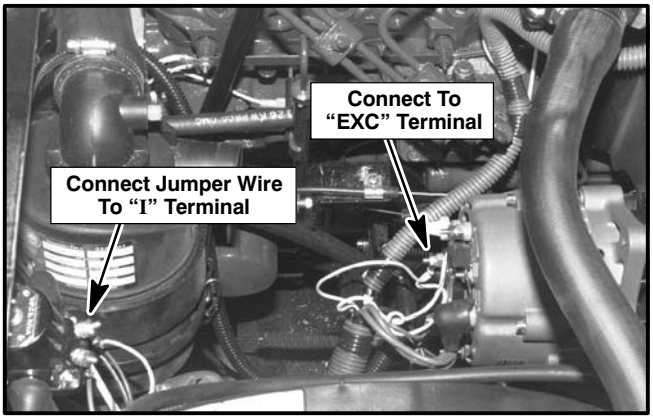


Figure 29
Terminal Locations

5. Open the bleeder port located on top of the fuel injector (See Fig. 30).
6. Turn the ignition key to the "ON" position (the fuel pump will begin to pump).

   When the fuel pump is pumping fuel only, the "thumping" sound will become more of a "purring" sound, when this occurs tighten the bleeder port.

   Turn the ignition key to the "OFF" position, remove the jumper wire and reconnect the white w/red wire onto the starter coil.

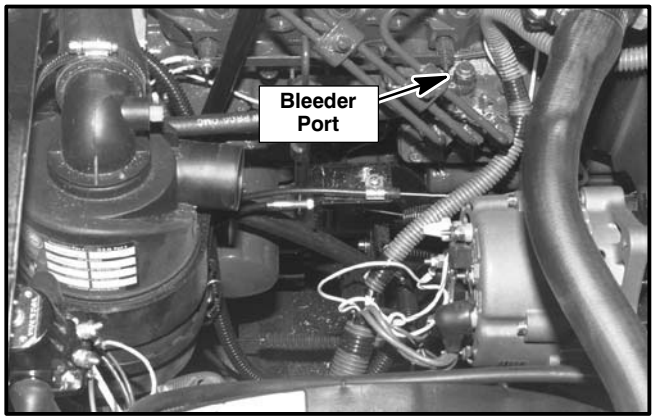


Figure 30
Bleeder Port Location

PURGING FUEL SYSTEM WITHOUT THE USE OF A JUMPER WIRE

Fuel system bleed may be accomplished using the glow plug timer if no jumper wire is available.

The fuel pump will energize for approximately 20 seconds during start-up from the glow plug pre-heat timer.

1. Open the bleeder port on top of the fuel injector (See Fig. 30).

   Turn the ignition key to the "ON" position. The fuel pump will be activated for about 20 seconds until the glow plug timer stops.

   When the timer stops, turn the key to the "Off" position then turn it back to the "ON" position, the fuel pump will run again for approximately 20 seconds, when the glow plug timer stops, turn the key off again. Continue with this procedure until the system is purged. When the fuel pump is pumping fuel only, the "thumping" sound will be more of a "purring" sound, when this occurs, tighten the bleeder port.

BATTERY

The battery is located on the left side of the vehicle, directly behind the stopwall behind the drivers seat.

The battery is negative ground and if connected in the opposite polarity, damage to the alternator will occur. The same applies when connecting a booster battery to the system.

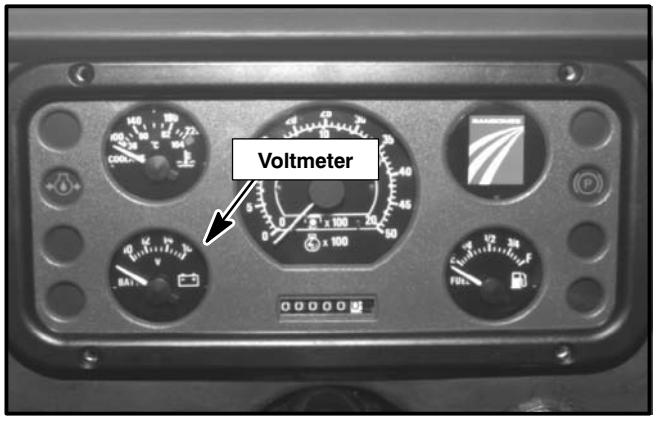


Figure 31
Voltmeter (Battery Charging System)

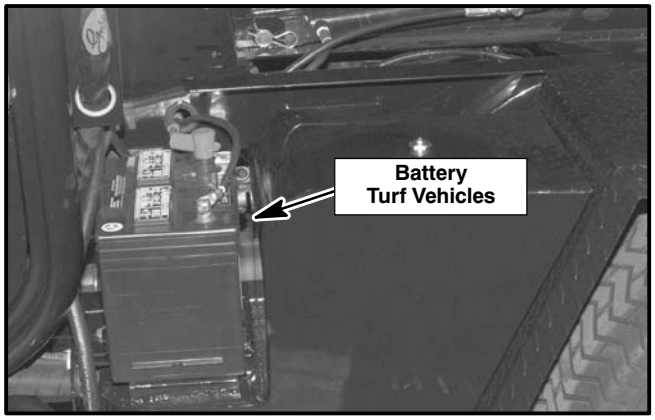


Figure 32
Battery Location For Turf Vehicles

The battery in this vehicle is "low maintenance". Add distilled water as required.

The voltmeter indicates the voltage level of the battery. Under normal operation it will indicate 12 to 18 volts (meaning the battery is being properly charged). A reading below 12 volts indicates the battery is being drained, this may **indicate a malfunction in the charging system which should be checked immediately.**

NOTICE

- Keep top of battery clean and free of corrosion by washing with a solution of baking soda and water or ammonia and water. Rinse with clean water. Terminals with heavy corrosion should be removed and cleaned with solution. For best results clean both battery post and cable terminals until shiny. Replace terminals and tighten.

WARNING

- **Untrained/Unauthorized persons should *NEVER* attempt to service or recharge the battery in this vehicle.**
- **Battery electrolyte is an acidic solution and should be handled with care. If electrolyte is spilled or splashed on any part of the body, immediately flush the exposed area with liberal amounts of water and obtain medical aid immediately.**

JUMP STARTING WITH A BOOSTER BATTERY

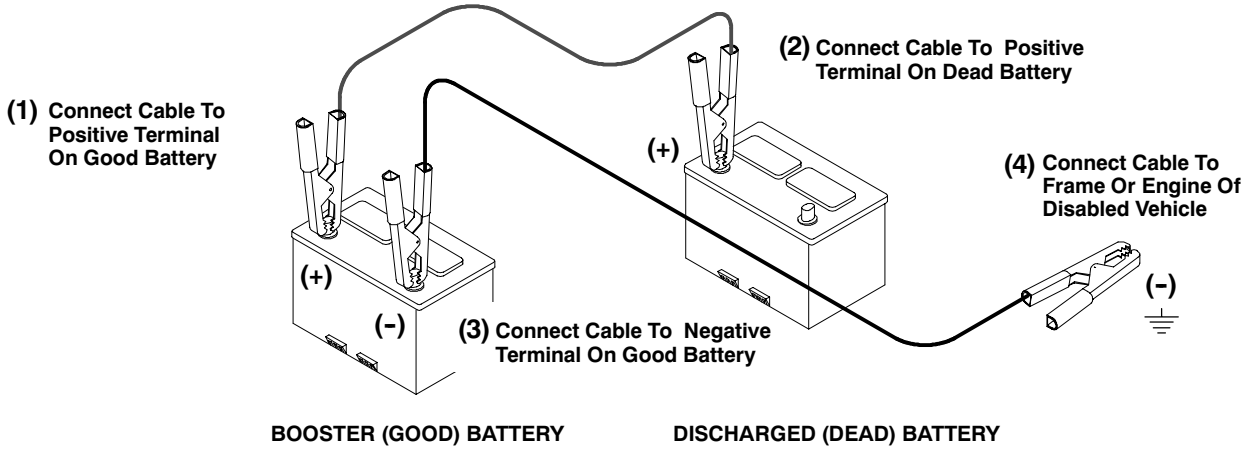
WARNING

- ***DO NOT* allow open flames or sparks near a battery when connecting for jump starting or while recharging the battery with a charger.**
- **Hydrogen gas is produced during the charging process and can be explosive. Provide adequate ventilation to prevent possible explosion.**

Jump Starting With a Booster Battery (con't.)

Both booster battery and discharged battery should be treated carefully when using jumper cables. Follow **exactly** the procedure outlined, being careful not to cause sparks.

1. Apply parking brake, put transmission in neutral and turn off all electrical loads.
2. Attach one end of one jumper cable to the positive (+) terminal of the booster battery and the other end to the positive (+) terminal of the discharged battery. ***DO NOT*** **permit vehicles to touch each other.**



3. Attach one end of remaining cable to the negative (-) terminal of the booster battery and the other end to a good ground on the vehicle or engine **away from the discharged battery.** ***DO NOT*** **lean over the battery when making this connection.**
4. Reverse this sequence **exactly** when removing the jumper cables.

NOTICE

- This is a negative ground wiring system, reversing battery connection will damage alternator rectifier.
- Booster batteries used for starting must be connected with proper polarity.
- Vehicle battery cables should be ***disconnected*** before using a "Fast Charger."

TOWING THE VEHICLE

Manual Transmission

If for any reason the vehicle needs to be towed, follow the guidelines below to properly tow the vehicle.

If towing the vehicle with a tow-rope or a chain, an operator is required to steer the vehicle and to control the brakes.

Towing the Vehicle con't.

Attach a tow line only to the front vertical frame member on either side of vehicle as shown in Figure 33.

Make sure the drive transmission is in **"neutral"** (out of gear) and the park brake is released.

With the tow line attached, have the towing vehicle move forward until the tow line becomes tight.

WARNING

- **NEVER tow the vehicle faster than 5 M.P.H. (8 km/h). Towing at excessive speed could cause either vehicle to lose proper steering control.**

While towing, try to keep the tow line taught at all times. Be cautious going down inclines and while turning corners.

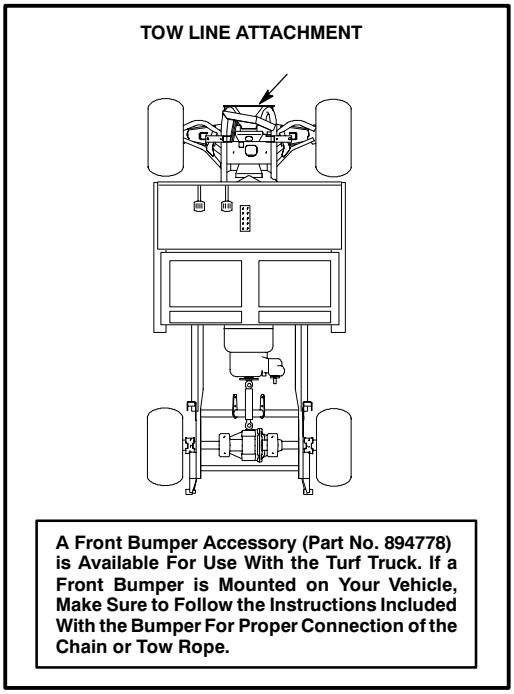


Figure 33
Tow Line Attachment Location

Automatic Transmission

When transporting the vehicle or when it is disabled, the ***BEST*** method of moving the vehicle is on a trailer. If that is not possible, the driveshaft ***MUST*** be removed before towing the vehicle.

If towing the vehicle with a tow-rope or a chain, an operator is required to steer the vehicle and to control the brakes.

Attach a tow line (tow line attaching locations are shown in Figure 33) only to the front vertical frame member of the vehicle.

Release the park brake and slowly move the towing vehicle forward until the tow line becomes tight.

Tow at a maximum speed of 5 m.p.h. (8 km/h).

While towing, try to keep the tow line taught at all times. Be cautious going down inclines and while turning corners.

If in an EMERGENCY and the vehicle must be towed ***and*** the drive shaft cannot be removed, attach a tow line to the front vertical frame member ONLY. Make sure the transmission is in "N" Neutral and the park brake is released. Tow at a maximum speed of 5 m.p.h. (8 km/h).

JACKS, JACKING LOCATIONS AND USING A HOIST

A scissors type jack or a floor jack with a 1 1/2 ton (minimum) capacity that can be lowered to 3 3/8" (86 mm) height is required.

The jacking locations are shown in the chart illustration on the following page.

Put the gear selector in 1st gear (manual transmissions) or in "P" Park (for automatic transmissions). Apply the park brake. Raise the vehicle ***ONLY*** enough to perform maintenance required.

Jacks, Jacking Locations and Using a Hoist (con't.)

Place a jack in the appropriate location (See Fig. 35) and place a block behind (or in front) of the tire ***diagonally opposite*** the side which is being raised (See Fig. 34).

WARNING

- ***DO NOT*** **rely solely on hydraulic or mechanical jacks for support. Use appropriate jack stands or equivalent for supporting the vehicle. If using a hoist, raise vehicle to appropriate height and support using jack stands or equivalent support.**
- ***Never*** **place feet, hands or any part of your body under the vehicle when raising it with a hoist.**

Jack the vehicle to the appropriate height and place jack stands or equivalent support beneath the frame near the jack. Lower the jack and allow the vehicle to rest on the jack stands.

NOTICE

- Raise the vehicle only enough to perform the maintenance required.

Raise the opposite side of the vehicle enough to allow the front tire to clear the ground. Place supports under the frame and lower the jack to allow the vehicle to rest on the jack stands.

Make sure to block the tire *diagonally opposite* of the side which is being raised.

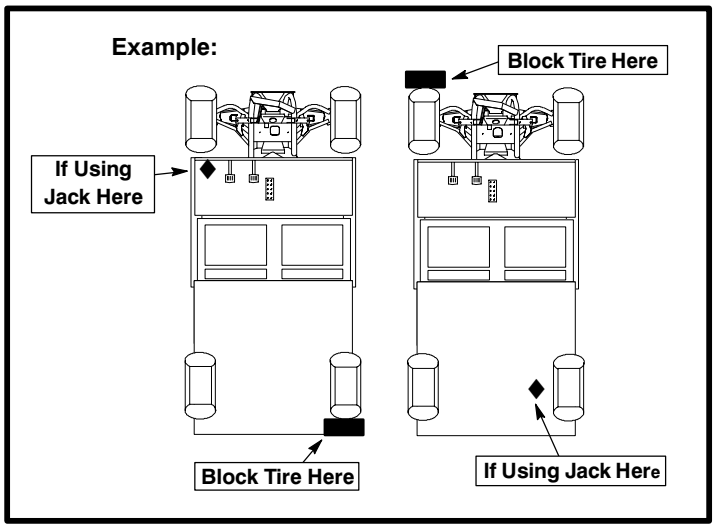


Figure 34
Blocking Tires

The illustration shows the frame without the body in order to show the jacking locations more clearly.

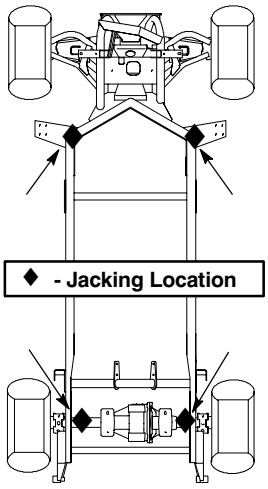


Figure 35
Jacking Locations

NOTICE

- When using a hoist to raise the vehicle, use the same procedure for supporting the frame and blocking the tires as you would when using a jack.
- To prevent damage to the vehicle or attached accessory, ***NEVER*** use a hoist to raise only ***one corner*** of the vehicle. ***ALWAYS raise BOTH front or rear corners equally.***

TIRE REMOVAL
Front & Rear

With the vehicle on a flat level surface (if possible), put the gear selector in first gear and apply the park brake.

Place a block in front of (or behind) the tire diagonally opposite the side which is being raised **(Refer to the "Jacks, Jacking Locations and Using a Hoist" section, Pages 26-27 in this manual).**

Raise the vehicle only enough to perform the maintenance required.

1. Remove the wheel retaining nuts (See Fig 36) and remove tire and wheel assembly from hub.
2. Install the tire and wheel by reversing the above sequence. Make sure valve stem (See Fig 36) is located toward the outside.
3. Tighten wheel retaining nuts to 70 to 100 ft. lbs. (95 to 140 N·m) torque.

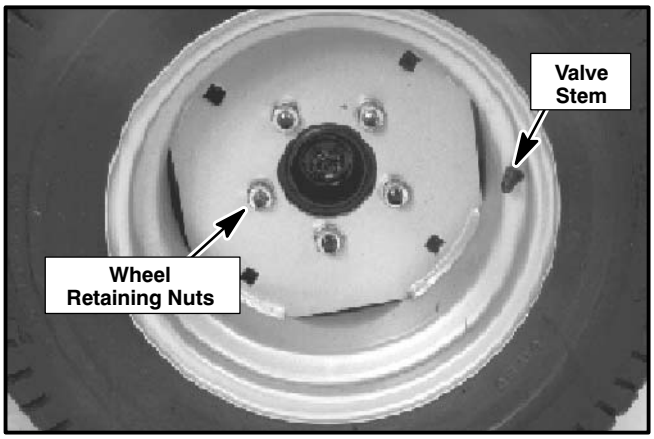


Figure 36
Wheel Retaining Nuts and Valve Stem

WARNING

- ***DO NOT*** **rely solely on hydraulic or mechanical jacks for support. Use appropriate jack stands or equivalent for supporting the vehicle. *Never* place feet, hands or any part of your body under the vehicle when raising it.**

SERVICING THE VEHICLE

AIR CLEANER ELEMENT

This is a large capacity dry type air cleaner with a replaceable element.

We recommend the filter element be **replaced** before engine performance is effected. This may occur at **250 hours** of service in very dirty operating conditions or at **500 hours** in normal operating conditions.

We ***DO NOT*** recommend cleaning the filter element because of the possibility of damaging the element.

WARNING

- **Before servicing or doing any maintenance work around the engine area, make sure the engine has had time to cool. Serious burns can result if the engine or surrounding area is hot.**

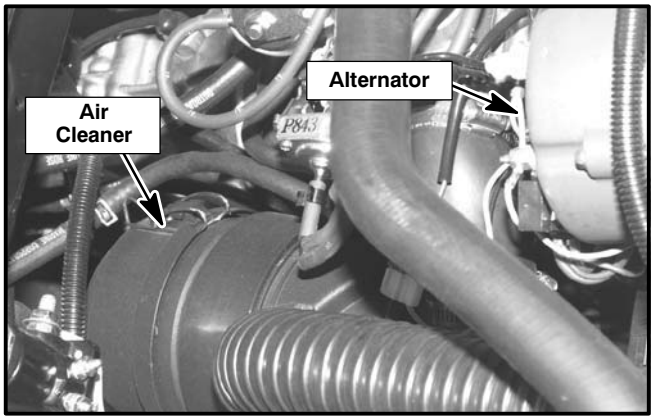


Figure 37
Air Cleaner Assembly

Air Cleaner Complete . . . . . Part No. 892679
Air Cleaner Element . . . . . Part No. 840352

Checking and Installing the Element

Tilt the engine cover forward and locate the air cleaner on the right rear of the engine (See Fig. 37).

To remove the air cleaner element release the latches securing the cover to the air cleaner assembly. Remove the filter element.

Check the element for damage, pin holes, etc. by placing a light source such as a flashlight inside.

Clean dust from inside of housing with damp cloth, making sure dust does ***NOT*** enter air intake.

Check all gaskets to be sure they are ***NOT*** damaged or loose.

Replace the element if it is damaged or is excessively clogged with dirt and/or debris.

Insert element in housing open end first.

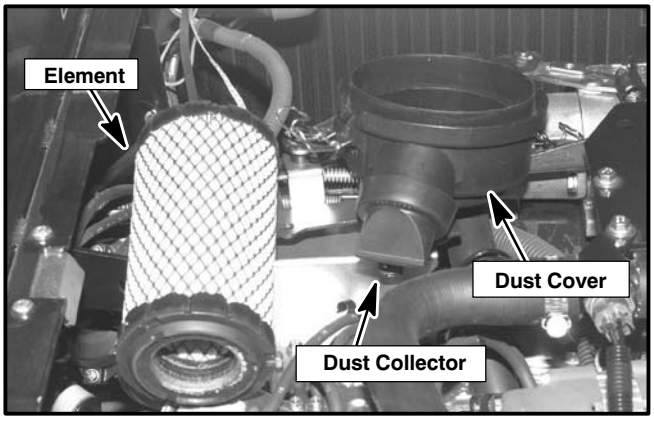


Figure 38
Air Cleaner Element and Dust Cover
(Shown Removed From the Housing)

Position the cover so that the collector is pointing down. Clamp cover into position with collector pointing down.

- ***DO NOT*** use bent or dented air cleaner assemblies.
- ***DO NOT*** use bent or damaged air cleaner element.
- The dust collector empties automatically when properly installed with collector down.

A dirty, clogged or damaged air filter will cause the engine to start hard as well as run rough and sluggish. Don't forget to check the air cleaner element if the engine does not run smoothly and other problems cannot be found.

ACCESS PANELS

There are two access panels located under the front hood and one located in the middle of the floorboard.

Remove the screws securing the panel to the fire wall to gain access to the shifter linkage and some of the electrical wiring for the instrument panel.

Remove the screws securing the panel to the bottom of the front cowl to gain access to the front suspension.

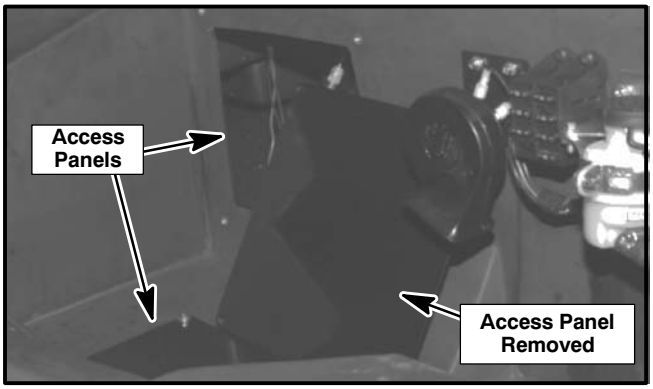


Figure 39
Access Panels Under Front Cowl

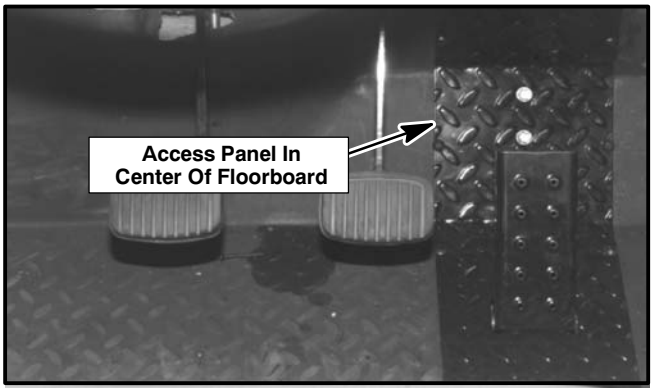


Figure 40
Access Panel on Floorboard

Remove the screws securing the panel to the floorboard. This will give you access to the throttle cable, linkage, electrical wire harness, as well as the brake lines which run to the master cylinder.

It will be necessary to remove the accelerator pedal in order to completely remove the center floorboard panel.

FRONT COWL ACCESS

The front cowl opens to gain access to the fuse panel, the horn, the master cylinder reservoir as well as various access panels which when removed, allow access to wiring for the dash panel, shifting lever linkage and the upper part of the front suspension.

To open the front cowl, locate the release lever at the upper left corner near the left side headlight.

Pull the lever to the right to release the front cowl latch and at the same time pull up on the front cowl.

Open the cowl allowing it to rest against the rops structure (if equipped) or the steering wheel.

The front cowl will not “spring up” when the release lever is pulled. The cowl will have to be raised when the latch is released.

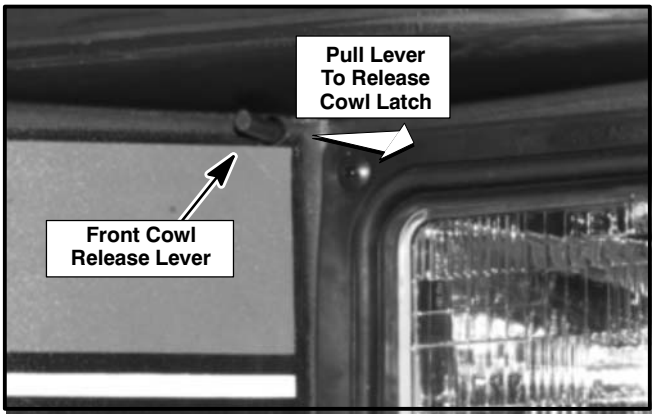


Figure 41
Release Lever For Front Cowl

LUBRICATION RECOMMENDATIONS

Transmission Fluid . SAE EP 80–90 Gear Lube

Automatic Transmission Fluid. Mercon/Dexron II

Differential Fluid . . . SAE EP 80–90 Gear Lube

Power Steering . . . . Power Steering Fluid (GM)

Brake Fluid . . . . . Dot 3

Pressure Gun Grease . . . . . Lithium Base

Hydraulic Fluid . . . . . Ransomes Turf Protector Biodegradable (Hyd Benz Bio 377)

LUBRICATION CHART

Lubricate all chassis fittings with *lithium base* pressure gun grease every 100 hours or 1000 miles.

Ref. No.	Lubrication Area	Number Of Grease Fittings	Ref. No.	Lubrication Area	Number Of Grease Fittings
1	Drive shaft	2	3	Lower Ball Joint	2
2	Upper Ball Joints	2	4	Tie Rod Ends	4

NOTICE

Reference to item 1:

Too much grease can damage the seals.

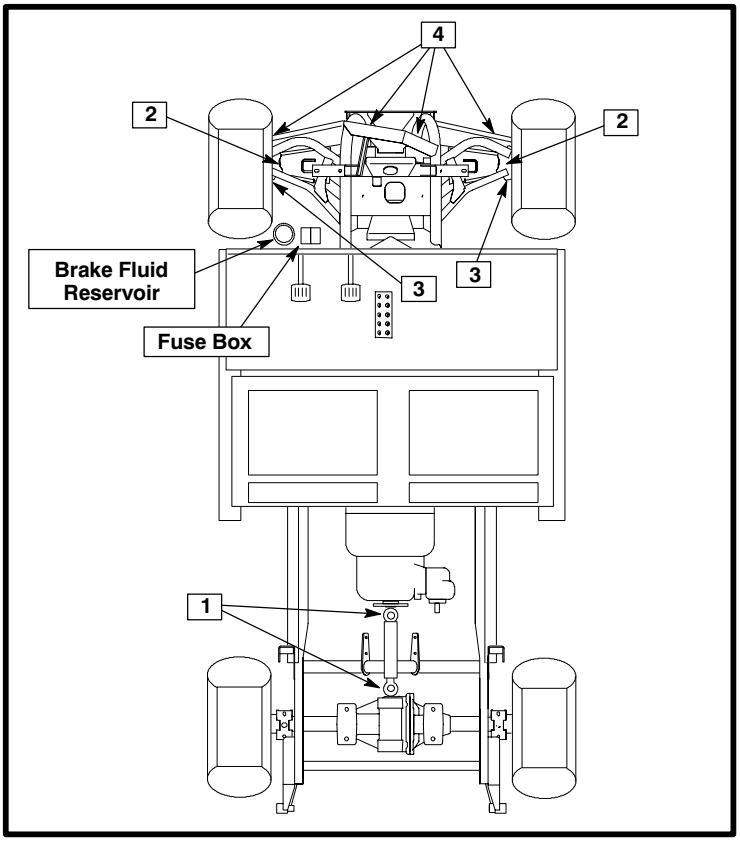


Figure 42
Lubrication Points

FUSES

The fuse box is located under the front cowl (See Fig. 43).

The fuses protect the electrical lighting circuits and accessory circuits such as the windshield washers, turn signals etc.

When replacing fuses, be sure the replacement fuse is the same amp as the fuse being replaced.

Pull straight out to remove a fuse. To install a fuse, push the new fuse into the appropriate fuse slot.

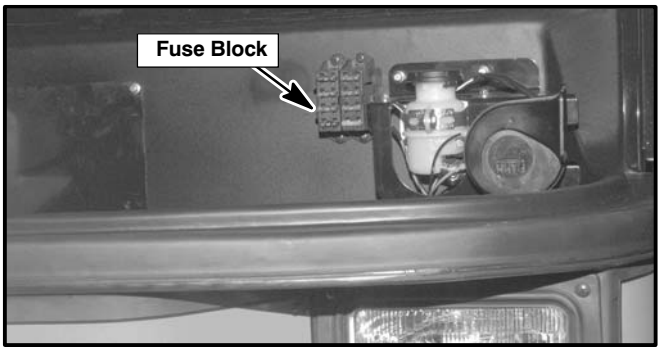


Figure 43
Fuse Block Located Under Front Cowl

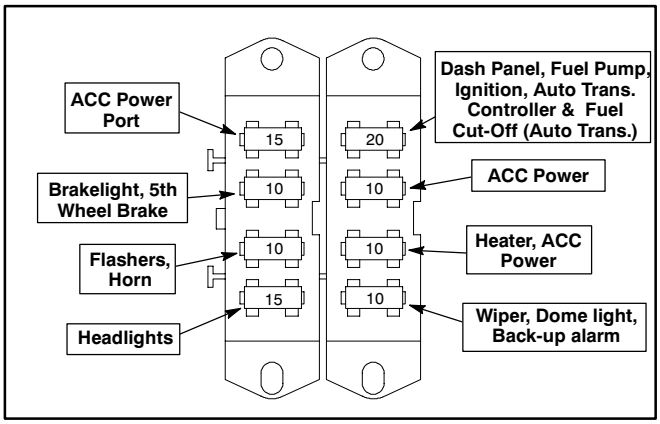


Figure 44
Fuse Box Panel

CAUTION

- **Electrical failure and/or fire can result if the fuses are not the proper amperage.**

BULBS, FUSES AND FLASHER

BULBS:	Voltmeter light		No. GE 658	
	Oil pressure warning light		No. C194	
	Tachometer		No. C161	
	Water temperature gauge light		No. GE 658	
	Fuel gauge light		No. GE 658	
	Hour Meter Light		No. GE 658	
	Turn signal(s), front (accessory)	32 CP	No. 1156	Part No. 837670
	Taillight(s)	32-4 CP	No. 1157	Part No. 822049
	Headlight(s)	65-45 Watt	No. H6545	Part No. 837303
FUSES:		10 AMP		Part No. 836892
		15 AMP		Part No. 849983
		20 AMP		Part No. 826000
		30 AMP		Part No. 833038
FLASHER:	Turn signal (accessory)			Part No. 825501

MAINTENANCE GUIDE

The following maintenance charts have been compiled as a general guideline for service intervals, based on hours of operation. Refer to the Engine Owner's Manual for further service and maintenance schedules and intervals.

Maintenance Operation	Daily	First 35 Hrs	First 50 Hrs	Every 75 Hrs or 2 months	Every 100 Hrs or 3 months
Check engine oil level	●				
Check cooling system coolant level	● ƒ				
Clean radiator intake screen	●				
Check water separator, drain as required (diesel only)	●				
Check fuel level	●				
Check engine for loose parts, damage and leaks	●				
Check exhaust color (diesel only)	●				
Check for engine noise; vibration	●				
Check tire pressure	●				
Change engine oil and filter (Suzuki only)			●		● *
Change engine oil (Perkins Diesel)		●		● *	
Change engine oil filter (Perkins)		●		● *	
Check valve clearance (to be done by authorized dealer)		●			
Check engine idle speed		●			
Check power steering fluid		●			●
Change fuel filter					●
Lubricate chassis (see lube chart)					●
Check governor oil level (Suzuki engines)					●
Check differential oil level					●
Check transmission fluid level					●
Check hydraulic tank fluid level					●
Check brake fluid (BF)					●
Check brake adjustment					●
Check clutch adjustment					●
Change differential oil					After first 100 hrs.

*** Depending on operating conditions, the engine oil and engine filter may need more frequent replacement.**

ƒ If coolant level is low add a 50/50 mixture of water and anti-freeze, *NEVER* add straight anti-freeze to the coolant system

OIL FILTER:
Suzuki K6A - Part No. 16510-82703
Suzuki 970 - Part No. 16510-82703
Perkins Diesel - Part No. 842553

HYDRAULIC FLUID (Biodegradable):
2 1/2 gal. (9.5 L) - Part No. 65363
5 gal. (19 L) - Part No. 65352
55 gal. (208 L) - Part No. 65354

FUEL FILTER:
Suzuki K6A - Part No. 15410-50F00
Perkins Diesel - Part No. 2208175
Suzuki 970 - Part No. 15410-50F00

SERVICE & MAINTENANCE Cont.

Maintenance Guide (con't.)

Maintenance Operation	Every 200 Hrs or 6 months	Every 400 Hrs or 9 months	Every 600 Hrs or 12 months	Every 1500 Hrs	
Replace air cleaner element	●‡				
Check valve clearance (See authorized dealer)	●				
Check fan belt and tension	●				
Inspect radiator hoses and clamps	●				
Change coolant		●			
Replace hydraulic system filter			●		
Change hydraulic system oil (tank only)			●		
Clean battery and terminals.			●		
Check alternator			●		
Repack front and rear wheel bearings			●		
Check starter motor brushes			●		
Check brake linings			●		
Change differential fluid			●		
Drain and replace radiator coolant			●		
Check engine idle speed			●		
Check glow plugs (diesel only)			●		
Check injection pump and timing (diesel only)			●		
Check fuel hoses and clamps			●		
Check all belts for tightness and cracking			●		
Adjust front brakes			●		
Replace timing belt (Suzuki engines)				●	
Change transmission fluid			●		
Check fuel hoses and clamps			●		
Check spark plugs for fouling (clean and gap as necessary)			●		

⁎ Depending on operating conditions, the engine oil and engine filter may need more frequent replacement.
‡ Depending on operating conditions, the air filter element may require more frequent replacement.

SPARK PLUGS:

Suzuki K6A:
Part No. 09482-00448 NGK DCPR7E
OR
Part No. 09482-00449 DensoXU22EPR-U
gap .032" - .035" (0.8 mm - 0.9 mm)

Suzuki 970:
Part No. 09482-00131 NGK BP5ES
OR
Part No. 09482-00123 Denso W16EX-U
gap .032" - .035" (0.8 mm - 0.9 mm)

AIR CLEANER ELEMENT:
All Models - Part No. 840352

TIMING BELT
Suzuki K6A - 11402-71D10
Suzuki 970 - 12761-78400

ENGINE BELTS, Perkins Diesel
Part No. 844301 (alt, pwr strng)
48" (1219 mm)
Part No. 841966 (hyd. pump, gov)
29 1/2 " (750 mm)

ENGINE BELTS, Suzuki K6A:
Part No. 841027 (gov, hyd pump)
53 1/4" (1352 mm)
Part No. 843998 (alt., pwr strng.)
40" (1016 mm)

ENGINE BELTS, Suzuki 970:
Part No. 836854 (alt, pwr strng)
42" (1067 mm)
Part No. 844036 (gov, hyd pump)
51" (1295 mm)

BRAKES

Service Brakes

WARNING

- **Improper maintenance of the brake system may result in loss of vehicle control by the operator. Losing control of the vehicle due to brake loss may cause vehicle damage and/or injury to the operator or bystanders.**

This vehicle is equipped with either four wheel or two wheel (rear only) hydraulic brakes and a hand operated park brake lever.

Keep your brake system clean and properly maintained.

If the brakes ***Do Not*** stop the vehicle properly, they must be repaired before the vehicle is operated again.

The brake fluid master cylinder reservoir is located under the front cowl.

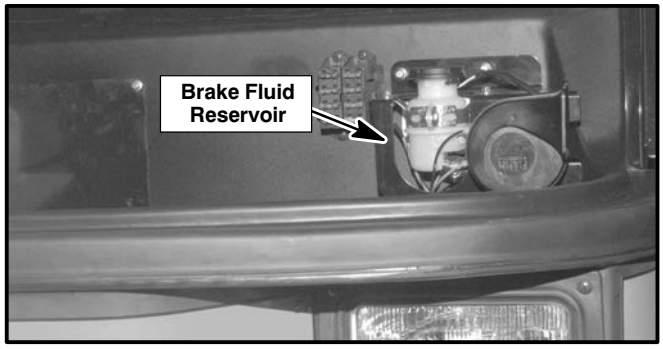


Figure 45
Brake Fluid Reservoir Located Under Front Cowl

The fluid level must be kept within the MIN (minimum) and MAX (maximum) levels as shown in Figure 46.

If the brake fluid level indicator light (See Fig. 47) comes on and remains on, check the brake fluid level in the reservoir.

When it is necessary to add fluid, use a **DOT 3 type** brake fluid.

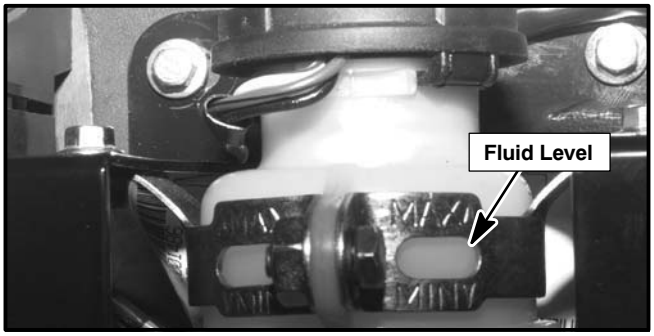


Figure 46
Brake Fluid Level Reading

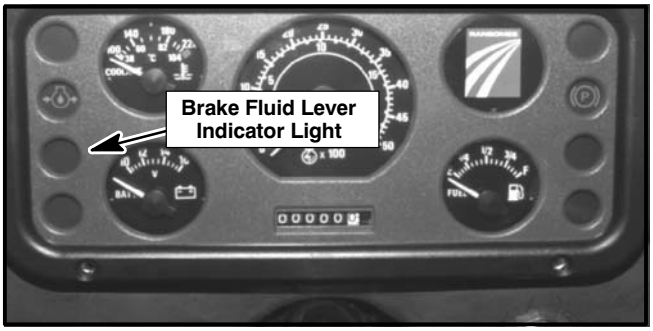


Figure 47
Brake Fluid Level Indicator Light

If the brakes do not hold properly, if they feel spongy ***or*** if the brake fluid reservoir is allowed to "run-dry", it may be necessary to bleed the brake lines in order to get fluid back into the system. Follow the steps below to properly bleed the brake system.

4-Wheel Brakes

When bleeding the system , bleed the **left rear** brake first ***then*** the **right rear,** then the **right front** and finally the **left front.**

Attach a hose to the bleeder screw on top of the left rear dust shield and place the other end of the hose in a container to catch the fluid run-off when bleeding the system.

Most communities have a disposal system for this type of refuse. ***Please dispose*** *of fluids properly.*

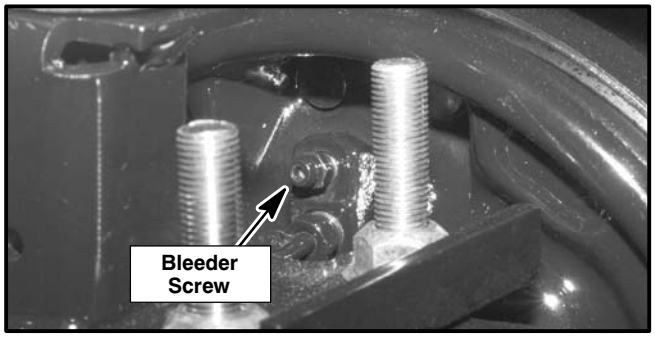


Figure 48
Bleeder Screw on Top of Dust Shield

Four Wheel Brakes (con't.)

Loosen the bleeder screw. Have an assistant push down on the brake pedal and hold pedal down. Tighten the bleeder screw and release the brake pedal. Loosen the bleeder screw again, press down on the brake pedal, hold pedal down and tighten the bleeder screw, release pedal. ***Do Not*** release the brake pedal until the bleeder screw is tightened otherwise air will be sucked back into the brake lines.

Continue this procedure until all air bubbles are purged from the system and a steady flow of fluid comes from the brake line. Repeat the procedure on the opposite side of the unit, then on the front.

Rear Wheel Only Brakes

Bleed the left rear brake first then the right rear.

Attach a hose to the bleeder screw on top of the dust shield and place the other end of the hose in a container to catch the run-off when bleeding the system.

Loosen the bleeder screw. Have an assistant push down on the brake pedal and hold pedal down. Tighten the bleeder screw and release the brake pedal. Loosen the bleeder screw again, press down on the brake pedal, hold pedal down and tighten the bleeder screw, release pedal. ***Do Not*** release the brake pedal until the bleeder screw is tightened otherwise air will be sucked back into the brake lines.

Continue this procedure until all air bubbles are purged from the system and a steady flow of fluid comes from the brake line. Repeat the procedure on the opposite side of the unit.

PARK BRAKE

The park brake applies the brakes to **both** rear wheels.

To engage the brake, pull up on the lever until park brake is applied (the park brake lever will be at an approximate 45° angle when applied).

To release, slightly pull up on the handle, push the button at the end of the lever and while holding the button in, lower the lever to it's original position.

Park Brake Adjustment

Raise the engine cover and locate the park brake cable and bracket beneath the console panel (See Fig. 50).

With the park brake released (brake lever down) tighten the adjustment nut a couple of turns and apply the park brake, continue adjustment until the brake lever is at an approximate 45° when the brake is applied.

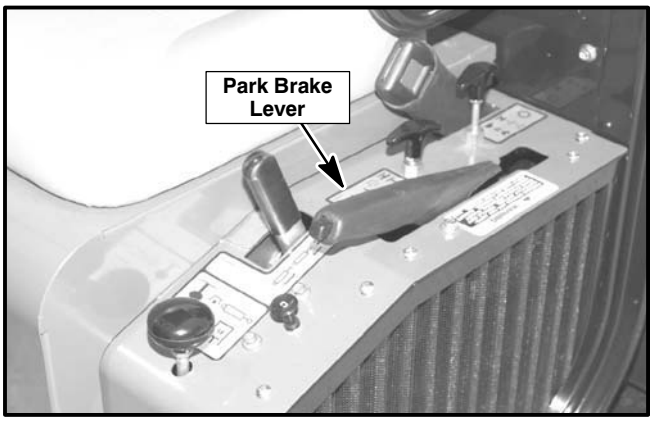


Figure 49
Park Brake Lever Location

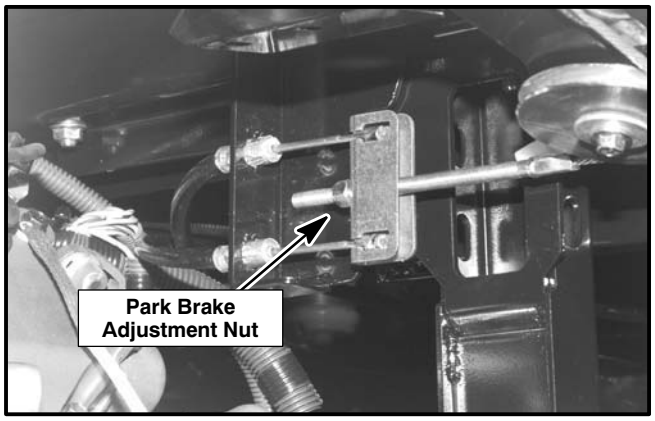


Figure 50
Park Brake Adjustment Nut

BULB REPLACEMENT, DASH PANEL

Remove the four (4) screws securing the instrument panel to the dash.

Pull the instrument panel out and tilt forward to gain access to the rear of the panel (See Fig. 51).

Determine which bulb will be replaced. Rotate the bulb holder 1/4 turn, pull up and remove holder and bulb. Remove the bulb from the holder and replace with the appropriate bulb. Reverse this sequence to install the bulb and holder.

Use the number printed on the bulb to obtain the correct replacement bulb, also refer to the chart on Page 29 for bulb specifications.

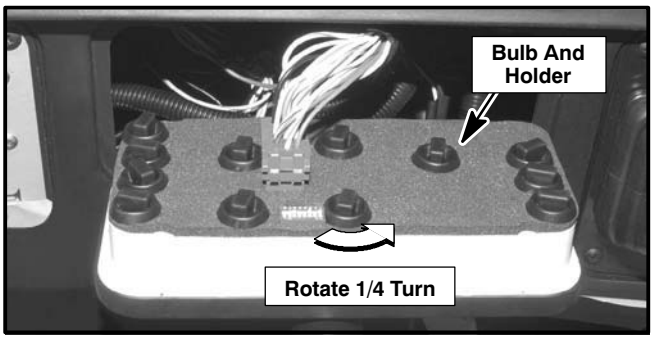


Figure 51
Dash Panel Bulb Removal

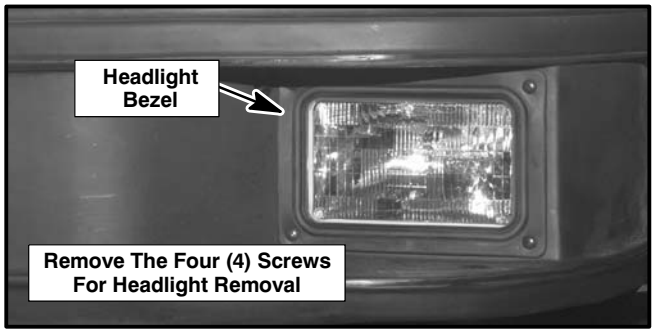


Figure 52
Headlight Removal

HEADLIGHT REPLACEMENT

Remove the four (4) screws securing the headlight bezel to the front cowl (See Fig. 52).

Pull the headlight and bezel from the front cowl opening. Disconnect the electrical connector from the rear of the headlight and remove the headlight from the bezel. Replace headlight and install in the reverse sequence used for removal.

Headlight . . . . . Part No. 837303
Bezel . . . . . Part No. 841428
Mounting Screws . . . Part No. 800943

BULB REPLACEMENT, TAILLIGHT

Remove the two (2) screws securing the taillight lens to the taillight.

Remove the bulb and replace with a No. 1157 bulb. Replace the lens cover making sure the gasket is positioned correctly.

To remove the taillight from the vehicle, remove the two (2) nuts and shakeproof washers securing the taillight to the frame.

Taillight Assembly . . . . . Part No. 893602
Bulb . . . . . Part No. 822049
Lens Screws . . . . . Part No. 312288
Lens and Gasket . . . . . Part No. 829099
License Illuminator Lens . . . Part No. 829099

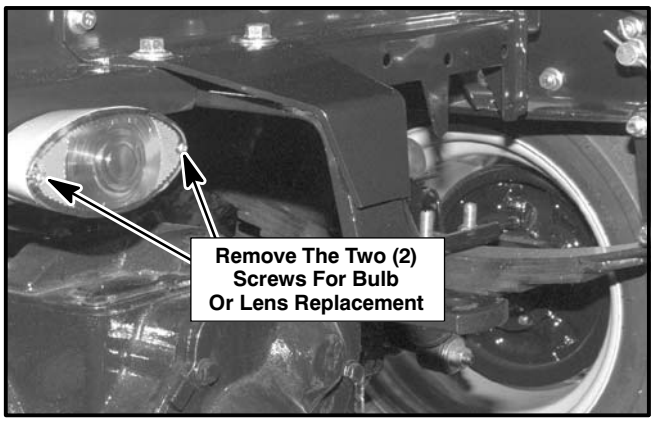


Figure 53
Taillight Bulb Replacement

GOVERNOR OIL LEVEL (Suzuki K6A & 970 Engines)

Check the oil level in the governor after ***every* 100 hours** of use. To check the level, remove the plug from the back side of the governor. Oil should be up to the level of the plug opening.

Governor Oil Capacity . . . . . 1.5 oz. (44 ml)
Oil Type . . . . . SAE 20W engine oil

If fluid level is low, add the recommended oil type.

Remove the plug from the rear side of the governor, remove the plug from the top of the governor and add an SAE 20W motor oil until the oil begins to leak from the rear port. Replace both plugs.

When replacing the plug, use Teflon tape or a Permatex 20 sealant (or equivalent pipe thread sealant) on the threads of the plug.

Torque the plugs to 95 ± 10 in.lb.

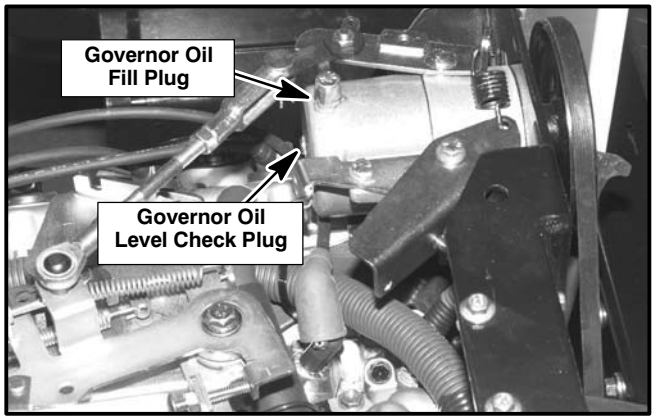


Figure 54
Governor Fill Plug (Suzuki Engines Only)

DIFFERENTIAL (11.16:1)

The differential fluid should be checked every **100 hours (or 3 months)** and ***changed*** after the first **100 hours.** After the first change at 100 hours the fluid should be **changed** every **600 hours (or 12 months).**

Differential Fluid Capacity . . 5.2 pints. (2.5 L)
Fluid Type . . . . . SAE EP 80-90 Gear Lube

To check fluid level, remove the filler plug from the front of the differential.

Fluid should be level with the bottom of the filler hole. If level is low, add gear lube until the appropriate level is reached (fluid will begin to leak from the filler hole when full level is reached). Replace filler plug.

To drain the differential fluid, remove the drain plug from the bottom rear of the differential and drain. Replace drain plug and add fluid to the recommended level.

When draining and filling the differential, use a pipe thread sealant on the plug threads before replacing them.

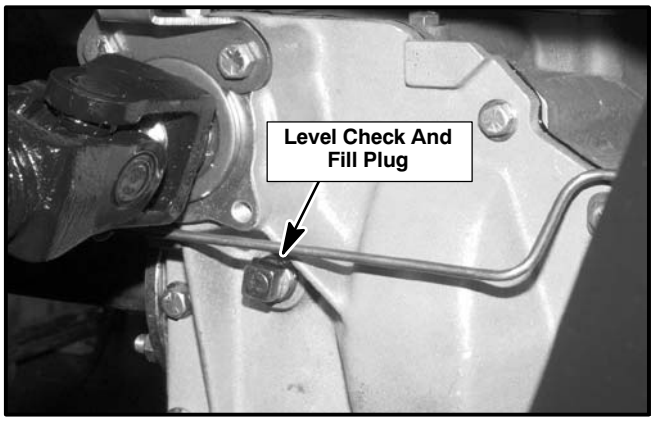


Figure 55
Differential Filler and Level Check Plug

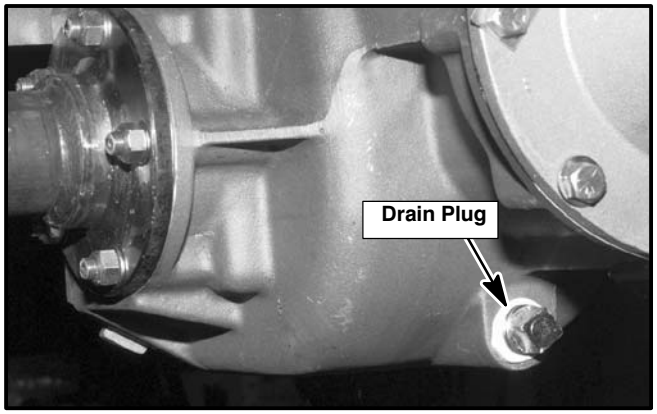


Figure 56
Differential Drain Plug

DRIVE TRANSMISSION

Maintaining proper lubrication level in the transmission is very important to the life of the gears and bearings.

Manual Transmission (Suzuki K6A Engine)

Check transmission fluid level every **100 hours (or 3 months).**
Change transmission fluid every **600 hours** or **(12 months).**

Transmission Capacity: 1.05 qts. (0.9 L)
Recommended Lubricant: SAE EP 80-90 Gear Lube

The filler plug is located on the right side of the transmission. When removed, the filler plug opening is used to determine proper fluid level.

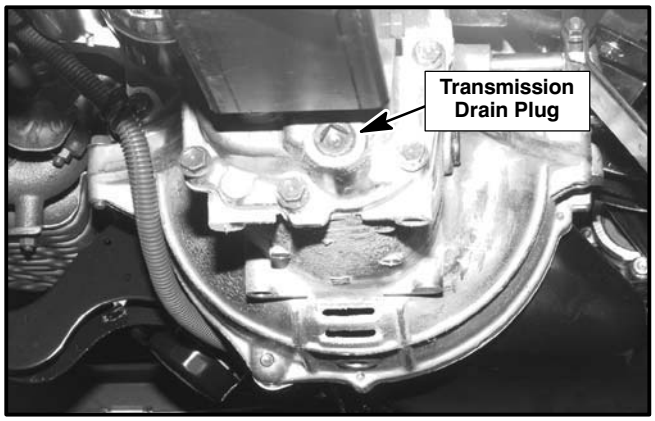


Figure 57
Transmission Drain Plug (Suzuki K6A Engine)

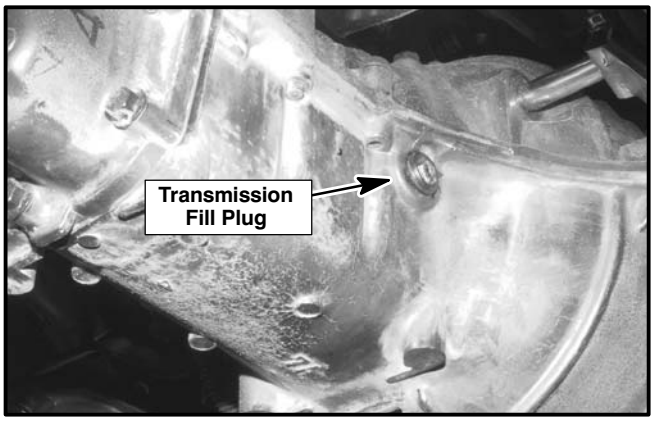


Figure 58
Transmission Filler Plug (Suzuki K6A Engine)

The fluid level must be level with the bottom of the filler plug hole.

If level is low, add fluid (through the filler hole) until it begins to flow from the filler hole. Reinstall the plug.

To drain the transmission fluid, remove the drain plug on the rear of the transmission.

When draining and filling the transmission, use a pipe thread sealant on the plug threads before replacing them.

Manual Transmission (Suzuki 970 & Perkins Diesel Engines)

Check transmission fluid level every **100 hours (or 3 months).**
Change transmission fluid every **600 hours** or **(12 months).**

Transmission Capacity: 1.34 qts. (1.3 L)
Recommended Lubricant: SAE EP 80-90 Gear Lube

The filler plug is located on the rear of the transmission. When removed, the filler plug opening is used to determine proper fluid level.

The fluid level must be level with the bottom of the filler plug hole.

If level is low, add fluid (through the filler hole) until it begins to flow from the filler hole. Reinstall the plug.

To drain the transmission fluid, remove the drain plug on the rear of the transmission.

When draining and filling the transmission, use a pipe thread sealant on the plug threads before replacing them.

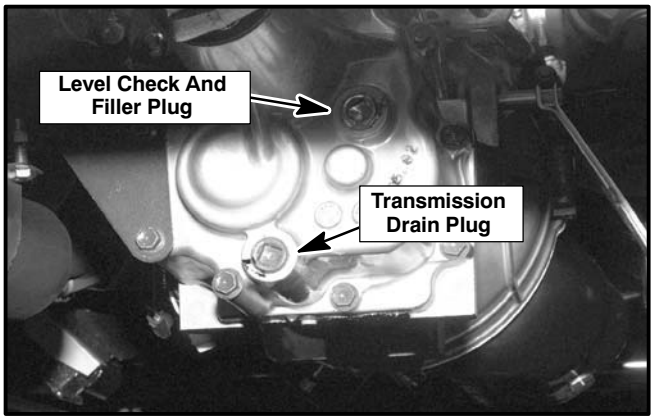


Figure 59
Transmission Drain & Fill Plugs

Drive Transmission (con't.)

Automatic Transmission

Check transmission fluid level every **100 hours (or 3 months).**
Change transmission fluid every **600 hours** or **(12 months).**

Transmission Capacity: 3.7 qts. (4.2 L)
Recommended Lubricant: Mercon/Dexron II

To check the transmission fluid the engine must be running. Place the gear selector in "P" Park, apply the park brake and start the engine.

With the engine running, remove the dipstick and wipe it with a clean rag. Insert the dipstick into the extension tube until it contacts the tube. Remove the dipstick and read the fluid level.

Fluid must be kept between the two marks on the dipstick. If necessary, add fluid to obtain the proper level. ***Do Not overfill.*** Add fluid using the extension tube as the fill tube.

To drain the transmission fluid, remove the drain plug located on the bottom left, rear corner of the transmission pan.

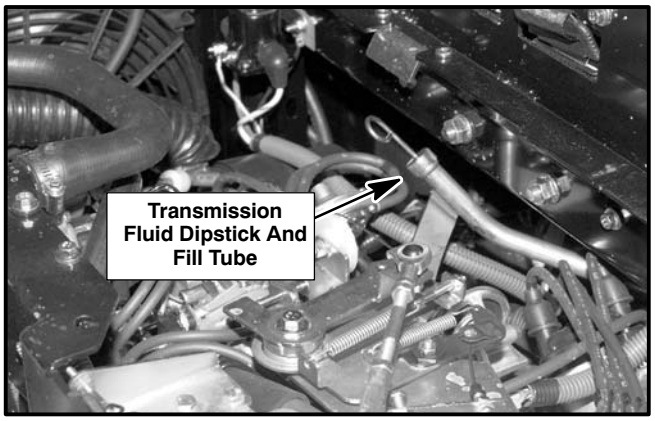


Figure 60
Automatic Transmission Dip Stick

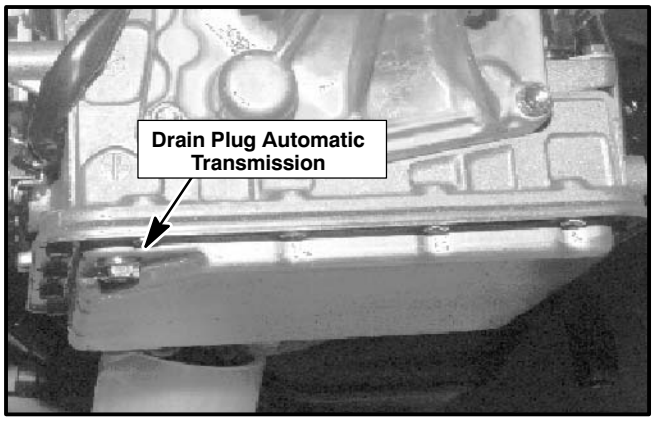


Figure 61
Automatic Transmission Drain Plug
(Suzuki K6A Engine)

NOTICE

- Most communities have special sites to dispose of used petroleum based products such as transmission fluid, engine oil and differential fluid. Please use an appropriate container to catch any fluids and dispose of properly.

ACCESSORIES, P.T.O. & HYDRAULIC ATTACHMENTS and 5th WHEEL IMPLEMENTS

There are numerous accessories, attachments and implements available for your vehicle.

Some accessories include:

- High/Low Hydraulics System
- Steel Cab Sets, Steel Door Sets
- Heater/Defroster
- Upper ROPS W/Seatbelt
- Dump Boxes and Platform Beds

Also attachments and implements like:

- the Quick Aerator, Core Harvester, TD 1500 & 2000 Top Dressers
- the Vicon Spreader, Turf Master Sprayers, Seed & Fertilizer Spreaders . . . . . and more

For information and availability on these accessories and others, contact your local Cushman Dealer.

TOWING A TRAILER (Trailer Hitch)

WARNING

- ***NEVER*** **pull loads which may exceed the braking capacity of the vehicle. The operator must determine if the Cushman vehicle has adequate braking capacity to stop either a loaded or unloaded vehicle and the trailer on the type(s) of surface(s) and grade(s) on which the vehicle will be operated.**
- **Position the load on the trailer so that the tongue weight on the towing vehicle will not cause instability or affect steering control.**
- ***NEVER*** **make sudden stops, turns or accelerations when towing a trailer or equipment.**

This vehicle is capable of pulling trailers and other equipment of greater weight than the vehicle itself, so ***caution and good judgment*** must be used to avoid losing control of the vehicle while braking or cornering.

Connect the equipment to be pulled to the trailer hitch on the rear of the vehicle. Secure using a tow pin or similar object. Be sure to secure the tow pin (or similar object) so it cannot fall out of the mounting hole.

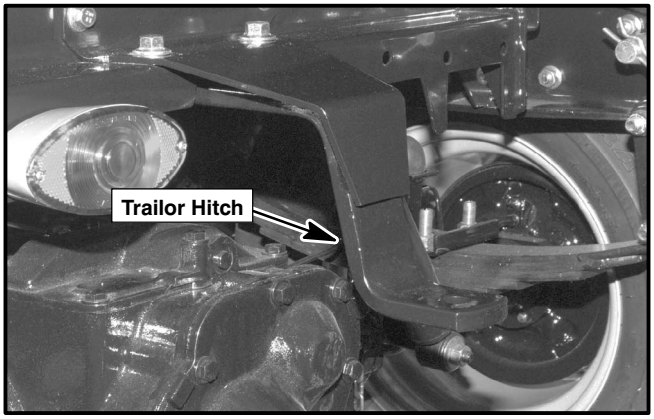


Figure 62
Trailer Hitch

DASH PANEL DIPSWITCH SETTINGS

Remove the four (4) screws securing the instrument panel to the dash.

Pull the instrument panel out and tilt forward to gain access to the rear of the panel (See Fig. 63).

Using a small blade screwdriver or similar tool, push the switch levers either up or down using the following sequence codes (the top of the dash panel will be referenced as “position 1”).

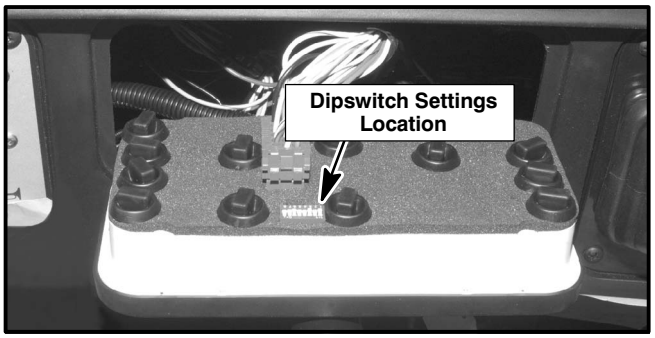
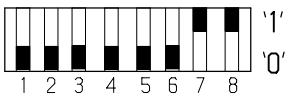


Figure 63
Dash Panel Dipswitch Location

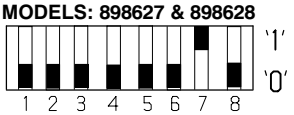
MODELS: 898671 & 898673



SEQUENCE CODE 0 0 0 0 0 0 1 1

Tachometer (Standard)

MODELS: 898627 & 898628



SEQUENCE CODE 0 0 0 0 0 0 1 0

Tachometer (Standard)

MODEL: 898695

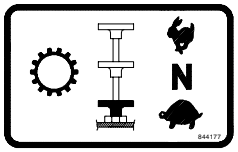
SEQUENCE CODE 0 0 0 1 0 0 0 0

Tachometer (Standard)

EQUIPMENT

The following information will tell you about the different controls and functions used when operating the P.T.O. and hydraulics system. These features are used when operating the accessories and implements often used with this vehicle.

TWO-SPEED DIFFERENTIAL



The two-speed differential has a high and low operating range, as well as a neutral position.

Shift the two-speed differential ***ONLY*** when the vehicle is ***stopped***. Pull the control handle all the way UP to operate in the high range, push it all the way DOWN to operate in the low range.

The two-speed differential control is located on the control panel to the left of the operator's seat (See Fig. 64).

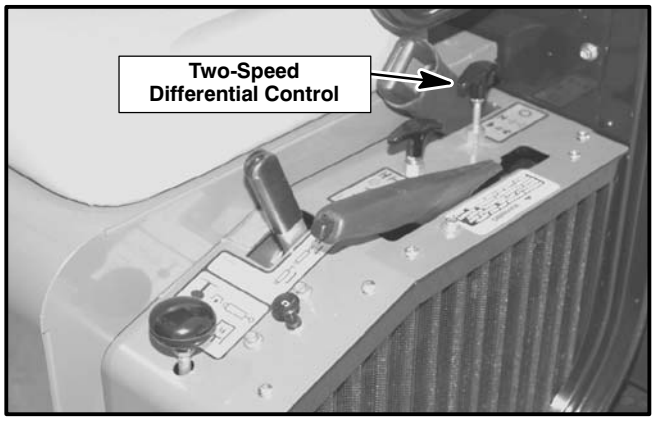


Figure 64
Two-speed Differential Control Handle

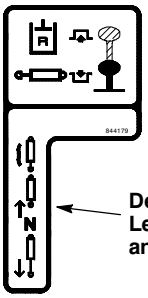
POWER HYDRAULIC LIFT SYSTEM

The power hydraulic lift system is referred to as a "live" system. This means the hydraulic pump operates whenever the engine is running.

The hydraulic lift control lever is located on the control panel to the left of the driver's seat (See Fig. 65).

The hydraulic lift is used when the vehicle is equipped with a dump box or similar accessory.

Push the lever forward and to the right to latch it in the float position (the float position allows the accessory being used to follow the contour of the land, the accessory, when in the lowered position, will "float" over the ground even in undulating terrain).



Decal Shows
Lever Positions
and Their Function

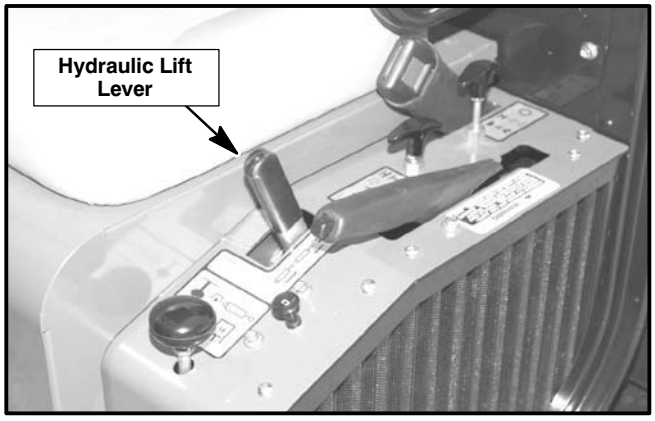
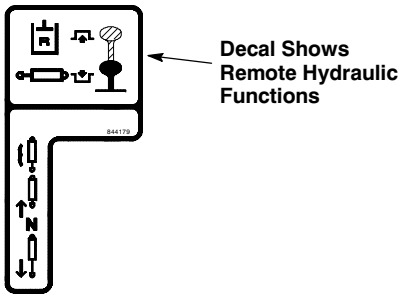


Figure 65
Hydraulic Lift Control Handle

Pull back on the lever to extend the hydraulic cylinder ram (raise the dump box) push forward on the lever to retract the hydraulic cylinder ram (lower the dump box).

REMOTE HYDRAULICS

The hydraulic system has a remote selector valve located at the front of the control panel, to operate accessories such as the Core Harvester™ or Top Dresser.



NOTICE

- The “DOWN” position directs hydraulic oil to the standard vehicle hydraulic lift system.
- The “UP” position directs hydraulic oil to the left side of the hydraulic panel for remote hydraulic system use.

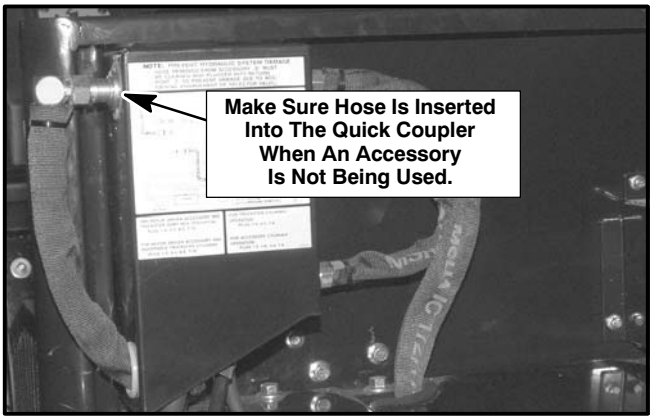


Figure 67
Remote Hydraulics Closed Loop Shown

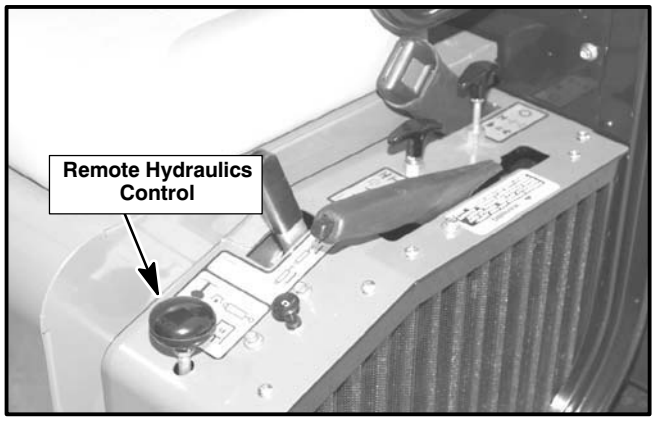
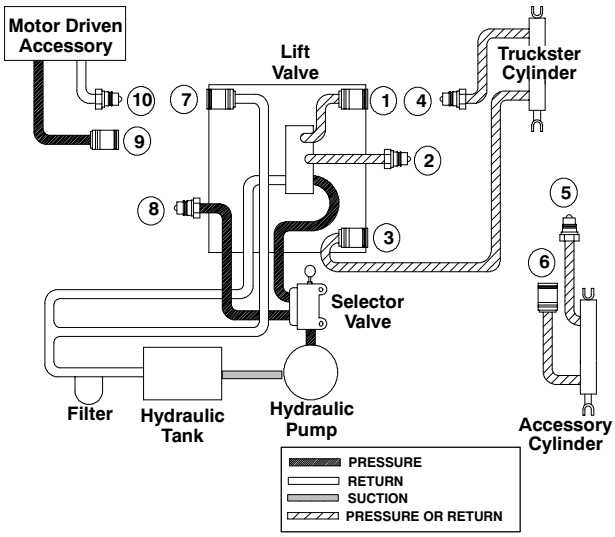


Figure 66
Remote Hydraulics Control Handle

When the remote hydraulics are not connected to equipment, the male and female quick connectors must be connected to form a closed loop (See Fig. 66).

It is ***extremely important*** that the hose nipple be inserted into the quick connector to form a closed loop as shown. This will prevent dirt from entering the system and prevent the hydraulic system from over-heating, leading to system failure if the remote selector knob is accidentally pulled up with the accessory removed.



For Motor Driven Accessory And Truckster Dump Box Operation:
Plug 1-4, 2-3, 8-9, 7-10.

For Motor Driven Accessory And Inoperable Truckster Cylinder:
Plug 1-2, 3-4, 8-9, 7-10.

For Truckster Cylinder Operation:
Plug 1-4, 2-3, 7-8.

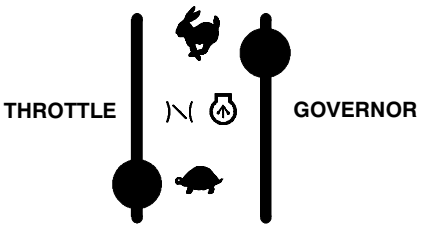
For Accessory Cylinder Operation:
Plug 1-5, 2-6, 4-3, 7-8.

WARNING

- **The vehicle is equipped with a hydraulic system to operate equipment. During operation, *ALWAYS* stay clear of moving parts to prevent injury.**

GOVERNOR CONTROL AND HAND THROTTLE

A manually set, variable governor control is included with the P.T.O. for regulation of P.T.O. or ground speed. The control lever is attached to the panel to the left of the instrument panel. The hand throttle lever is attached to the same panel.



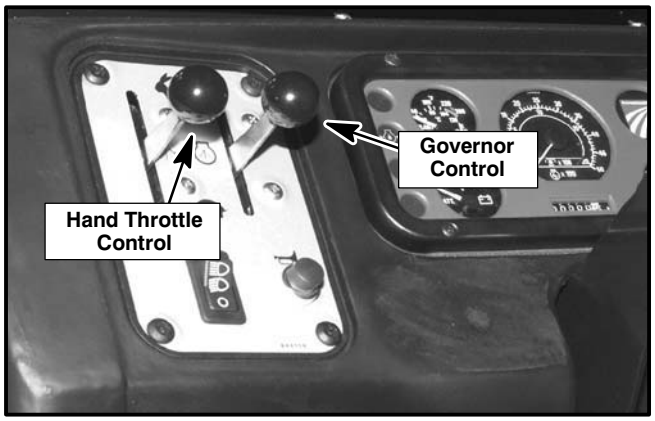


Figure 68
Governor and Hand Throttle Controls

The engine governor is preset to control engine (vehicle) ground speeds to design limits

The engine governor is preset to control engine ground (vehicle) speeds to design limits.

Normal mode:

- Hand throttle control lever in “DOWN” position.
- Variable governor control in “UP” position.

NOTICE

- **(Diesel Only)** In the NORMAL MODE, the foot pedal throttle retains full control of throttle lever position. An internal governor adjusts the injector pump to compensate for variations in power requirements (maintains R.P.M. dictated by position of foot pedal throttle).

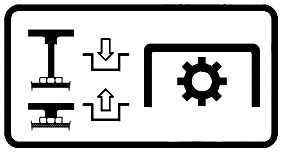
WARNING

- **To prevent speeds greater than design limits, NEVER alter the governor controls in any manner to increase speed beyond the recommended maximum R.P.M. Over-speeding may result in engine failure and possible injury to operator and/or bystanders.**

POWER TAKE OFF (Mechanical P.T.O.)

There is also an optional hydraulic powered P.T.O. system available. Refer to the section Power Take-Off (Hydraulic P.T.O.) for proper operating instructions.

The P.T.O. transmits power from the transmission to a splined shaft at the rear of the vehicle for easy hook-up to optional equipment.



The control handle is located on the control panel to the left of the operator’s seat.

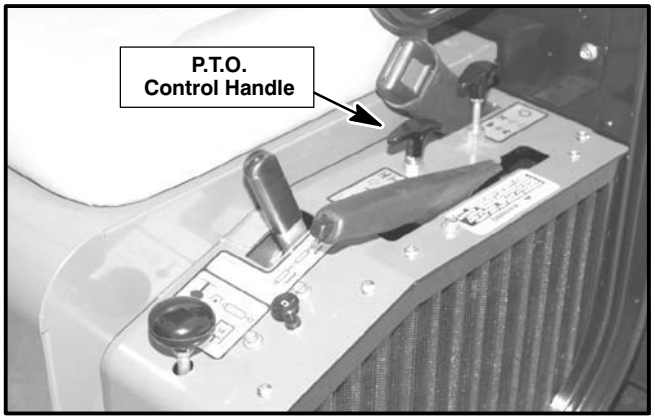


Figure 69
P.T.O. Control Handle Location
PULL UP to engage. – PUSH DOWN to disengage.

Power Take Off (Mechanical P.T.O.) con't.

WARNING

- **When an attachment is not connected to the P.T.O. shaft, disengage drive to the P.T.O. by pushing control handle down.**
- **P.T.O. includes a spring loaded P.T.O. cover. This cover must remain on the vehicle and be used at all times. An uncovered rotating spline can catch clothing and result in serious injury or death. *ALWAYS* remain clear of the P.T.O. shaft and all moving parts.**
- **If you do not want the vehicle to move, *ALWAYS* make sure the transmission is out of gear and the park brake is applied when the clutch pedal is released to activate the P.T.O. shaft. Make sure the vehicle is in Park with the park brake applied for automatic transmissions.**
- ***ALWAYS* disengage the P.T.O. before attaching any equipment to the P.T.O. shaft.**

NOTICE

- To engage P.T.O. ***ALWAYS STOP*** the vehicle. For vehicles with manual transmissions, stop the vehicle, push the clutch pedal in ***THEN*** pull the P.T.O. control knob upward.

For Use When The Vehicle Is Stationary

1. Make sure governor control is in the "UP" position.
2. Make sure differential is in either ***HIGH*** or ***LOW*** range, ***NOT the NEUTRAL position.***
3. Set (engage) the parking brake.
4. Put transmission in neutral (out of gear) and engage the clutch (put automatic transmission in Park).
5. Push foot throttle pedal to floorboard.
6. Raise the hand throttle control lever to full engine R.P.M.
7. Move the governor control lever to desired engine R.P.M.

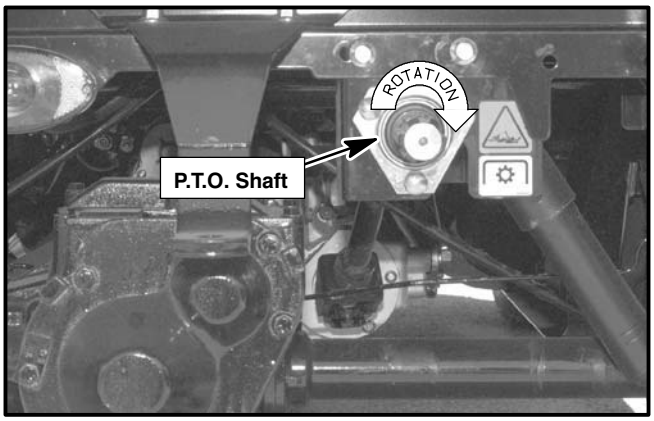


Figure 70
P.T.O. Shaft Location

For Use While Vehicle Is Moving

1. Refer to the Power Take-Off R.P.M./Vehicle Speed chart (see Page 50) to select the proper P.T.O. and ground speed combination for the accessory equipment being used, there is also a decal representing the P.T.O. and ground speed combinations located on the same panel as the P.T.O. control handle.
2. Make sure the governor control lever is all the way DOWN so that the engine is held at idle speed.
3. Push the foot throttle pedal to the floorboard.
4. Position the governor control lever to obtain engine R.P.M. corresponding to the desired P.T.O. and vehicle ground speed.
5. Put transmission in desired gear, engage clutch (for vehicles with manual transmissions) and depress foot throttle.

Power Take Off (Mechanical P.T.O.) con't.

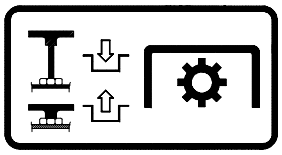
The P.T.O. may be stopped momentarily by pushing the clutch pedal in (on vehicles with manual transmissions). When the clutch pedal is released the P.T.O. will start again.

WARNING

- ***NEVER*** **attempt to drive the vehicle with the engine speed increased by the hand throttle. The hand throttle also controls the foot throttle, so the foot throttle pedal cannot be used to reduce engine and vehicle speed.** ***FAILURE*** **to obey this warning may result in you, the operator, losing vehicle control.**

POWER TAKE OFF (Hydraulic P.T.O.)

The hydraulic P.T.O. transmits power from the transmission to a splined shaft at the rear of the vehicle for easy hook-up to optional equipment.



The control handle is located on the control panel to the left of the operator's seat.

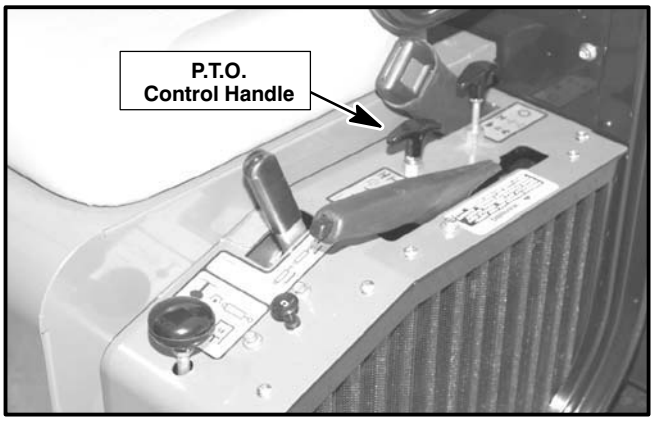


Figure 71
P.T.O. Control Handle Location
PULL UP to engage. - PUSH DOWN to disengage.

To activate the P.T.O., move the live hydraulic hose from the ***upper coupler*** on the left side of the hydraulic panel to the ***lower coupler*** on the left side of the panel.

Make sure the hydraulic P.T.O. control handle is in the ***down*** position (if the control handle ***is not down*** the P.T.O. shaft can start rotating).

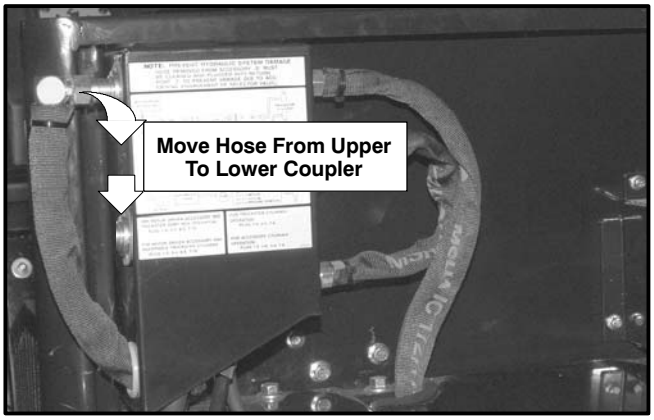


Figure 72
Moving Live Hydraulic Hose for Hydraulic P.T.O.

WARNING

- **When an attachment is not connected to the P.T.O. shaft, disengage drive to the P.T.O. by pushing the hydraulic control handle down and replacing the live hydraulic hose in the** ***upper coupler.***
- **The PTO runs when the control handle is** ***up.*** **Depressing the clutch pedal** ***Does Not*** **stop the PTO from running, the control handle must be in the down position for the PTO to stop.**
- **P.T.O. includes a spring loaded P.T.O. cover. This cover must remain on the vehicle and be used at all times. An uncovered rotating spline can catch clothing and result in serious injury or death.**

Power Take Off (Hydraulic P.T.O.) con't.

NOTICE

- To engage P.T.O. ***ALWAYS STOP*** the vehicle. For vehicles with manual transmissions, stop the vehicle, push the clutch pedal in ***THEN*** pull the P.T.O. control knob upward.

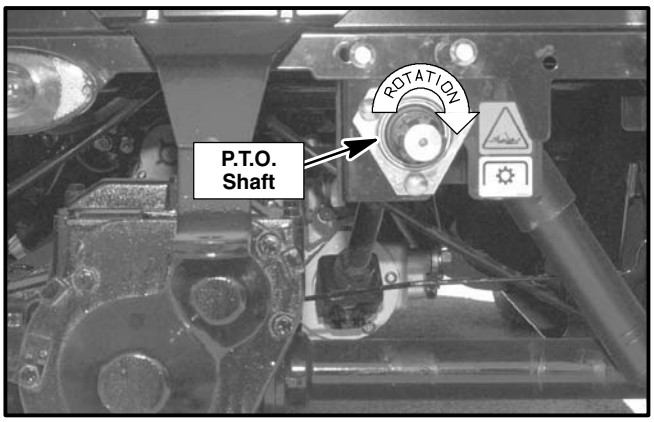


Figure 73
P.T.O. Shaft Location

For Use When The Vehicle Is Stationary

1. Make sure governor control is in "UP" position.
2. Set (engage) the parking brake.
3. Put transmission in neutral (out of gear) and engage the clutch (put automatic transmission in Park).
4. Push foot throttle pedal to floorboard.
5. Raise the hand throttle control lever to full engine R.P.M.
6. Move the governor control lever to desired engine R.P.M.

WARNING

- **If you do not want the vehicle to move, *ALWAYS* make sure the transmission is out of gear and the park brake is applied when the clutch pedal is released to activate the P.T.O. shaft. Make sure the vehicle is in Park with the park brake applied for automatic transmissions.**
- ***ALWAYS* disengage the P.T.O. before attaching any equipment to the P.T.O. shaft. *ALWAYS* remain clear of the P.T.O. shaft and all moving parts.**

For Use While Vehicle Is Moving

1. Refer to the Power Take-Off R.P.M./Vehicle Speed chart (see Page 50) to select the proper P.T.O. and ground speed combination for the accessory equipment being used, there is also a decal representing the P.T.O. and ground speed combinations located on the same panel as the P.T.O. control handle.
2. Position the governor control lever to obtain engine R.P.M. corresponding to the desired P.T.O. and vehicle ground speed.
3. Put transmission in desired gear, engage clutch (for vehicles with manual transmissions) and depress foot throttle.
4. Pull up on the hydraulic P.T.O. control handle to start P.T.O. operation. ***The P.T.O. can only be stopped by pushing the control handle down.***

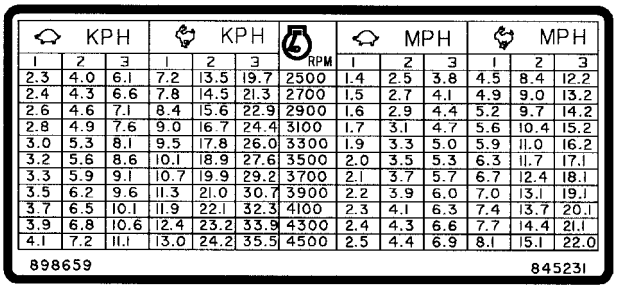
WARNING

- ***NEVER* attempt to drive the vehicle with the engine speed increased by the hand throttle. The hand throttle also controls the foot throttle, so the foot throttle pedal cannot be used to reduce engine and vehicle speed. *FAILURE* to obey this warning may result in you, the operator, losing vehicle control.**

GROUND SPEED CHARTS

The following decal/charts show the vehicle's ground speed in relation to the P.T.O.'s rpm. Select the proper p.t.o. and ground speed combination for the accessory equipment being used.

The decals are applied to each of the appropriate turf models and are shown below with correct model identity. Please replace any decal which may become damaged and/or hard to read.

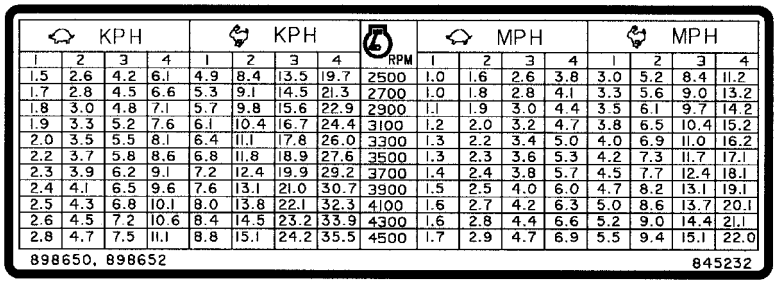


KPH			KPH			RPM	MPH			MPH		
1	2	3	1	2	3		1	2	3	1	2	3
2.3	4.0	6.1	7.2	13.5	19.7	2500	1.4	2.5	3.8	4.5	8.4	12.2
2.4	4.3	6.6	7.8	14.5	21.3	2700	1.5	2.7	4.1	4.9	9.0	13.2
2.6	4.6	7.1	8.4	15.6	22.9	2900	1.6	2.9	4.4	5.2	9.7	14.2
2.8	4.9	7.6	9.0	16.7	24.4	3100	1.7	3.1	4.7	5.6	10.4	15.2
3.0	5.3	8.1	9.5	17.8	26.0	3300	1.9	3.3	5.0	5.9	11.0	16.2
3.2	5.6	8.6	10.1	18.9	27.6	3500	2.0	3.5	5.3	6.3	11.7	17.1
3.3	5.9	9.1	10.7	19.9	29.2	3700	2.1	3.7	5.7	6.7	12.4	18.1
3.5	6.2	9.6	11.3	21.0	30.7	3900	2.2	3.9	6.0	7.0	13.1	19.1
3.7	6.5	10.1	11.9	22.1	32.3	4100	2.3	4.1	6.3	7.4	13.7	20.1
3.9	6.8	10.6	12.4	23.2	33.9	4300	2.4	4.3	6.6	7.7	14.4	21.1
4.1	7.2	11.1	13.0	24.2	35.5	4500	2.5	4.4	6.9	8.1	15.1	22.0

898659 845231

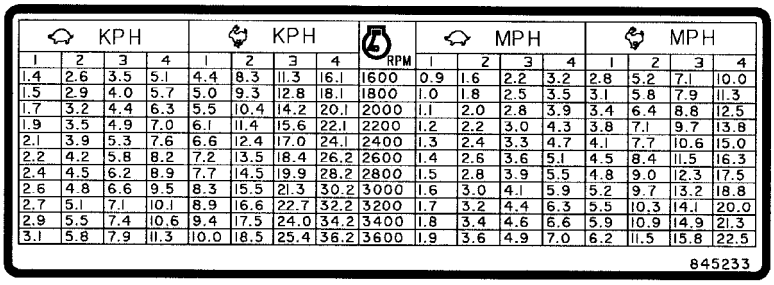
For use with Turf Model 898628
Suzuki K6A
with automatic transmission

For use with Turf Models 898627
Suzuki K6A
with manual transmission



KPH				KPH				RPM	MPH				MPH			
1	2	3	4	1	2	3	4		1	2	3	4	1	2	3	4
1.5	2.6	4.2	6.1	4.9	8.4	13.5	19.7	2500	1.0	1.6	2.6	3.8	3.0	5.2	8.4	11.2
1.7	2.8	4.5	6.6	5.3	9.1	14.5	21.3	2700	1.0	1.8	2.8	4.1	3.3	5.6	9.0	13.2
1.8	3.0	4.8	7.1	5.7	9.8	15.6	22.9	2900	1.1	1.9	3.0	4.4	3.5	6.1	9.7	14.2
1.9	3.3	5.2	7.6	6.1	10.4	16.7	24.4	3100	1.2	2.0	3.2	4.7	3.8	6.5	10.4	15.2
2.0	3.5	5.5	8.1	6.4	11.1	17.8	26.0	3300	1.3	2.2	3.4	5.0	4.0	6.9	11.0	16.2
2.2	3.7	5.8	8.6	6.8	11.8	18.9	27.6	3500	1.3	2.3	3.6	5.3	4.2	7.3	11.7	17.1
2.3	3.9	6.2	9.1	7.2	12.4	19.9	29.2	3700	1.4	2.4	3.8	5.7	4.5	7.7	12.4	18.1
2.4	4.1	6.5	9.6	7.6	13.1	21.0	30.7	3900	1.5	2.5	4.0	6.0	4.7	8.2	13.1	19.1
2.5	4.3	6.8	10.1	8.0	13.8	22.1	32.3	4100	1.6	2.7	4.2	6.3	5.0	8.6	13.7	20.1
2.6	4.5	7.2	10.6	8.4	14.5	23.2	33.9	4300	1.6	2.8	4.4	6.6	5.2	9.0	14.4	21.1
2.8	4.7	7.5	11.1	8.8	15.1	24.2	35.5	4500	1.7	2.9	4.7	6.9	5.5	9.4	15.1	22.0

898650, 898652 845232



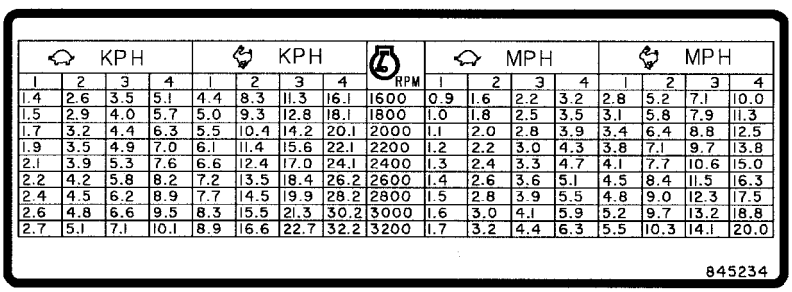
KPH				KPH				RPM	MPH				MPH			
1	2	3	4	1	2	3	4		1	2	3	4	1	2	3	4
1.4	2.6	3.5	5.1	4.4	8.3	11.3	16.1	1600	0.9	1.6	2.2	3.2	2.8	5.2	7.1	10.0
1.5	2.9	4.0	5.7	5.0	9.3	12.8	18.1	1800	1.0	1.8	2.5	3.5	3.1	5.8	7.9	11.3
1.7	3.2	4.4	6.3	5.5	10.4	14.2	20.1	2000	1.1	2.0	2.8	3.9	3.4	6.4	8.8	12.5
1.9	3.5	4.9	7.0	6.1	11.4	15.6	22.1	2200	1.2	2.2	3.0	4.3	3.8	7.1	9.7	13.8
2.1	3.9	5.3	7.6	6.6	12.4	17.0	24.1	2400	1.3	2.4	3.3	4.7	4.1	7.7	10.6	15.0
2.2	4.2	5.8	8.2	7.2	13.5	18.4	26.2	2600	1.4	2.6	3.6	5.1	4.5	8.4	11.5	16.3
2.4	4.5	6.2	8.9	7.7	14.5	19.9	28.2	2800	1.5	2.8	3.9	5.5	4.8	9.0	12.3	17.5
2.6	4.8	6.6	9.5	8.3	15.5	21.3	30.2	3000	1.6	3.0	4.1	5.9	5.2	9.7	13.2	18.8
2.7	5.1	7.1	10.1	8.9	16.6	22.7	32.2	3200	1.7	3.2	4.4	6.3	5.5	10.3	14.1	20.0
2.9	5.5	7.4	10.6	9.4	17.5	24.0	34.2	3400	1.8	3.4	4.6	6.6	5.9	10.9	14.9	21.3
3.1	5.8	7.9	11.3	10.0	18.5	25.4	36.2	3600	1.9	3.6	4.9	7.0	6.2	11.5	15.8	22.5

845233

For use with Turf Model 898671
Suzuki 970 manual transmission

For use with Turf Models 898673 and 898695

Perkins Diesel with manual transmission



KPH				KPH				RPM	MPH				MPH			
1	2	3	4	1	2	3	4		1	2	3	4	1	2	3	4
1.4	2.6	3.5	5.1	4.4	8.3	11.3	16.1	1600	0.9	1.6	2.2	3.2	2.8	5.2	7.1	10.0
1.5	2.9	4.0	5.7	5.0	9.3	12.8	18.1	1800	1.0	1.8	2.5	3.5	3.1	5.8	7.9	11.3
1.7	3.2	4.4	6.3	5.5	10.4	14.2	20.1	2000	1.1	2.0	2.8	3.9	3.4	6.4	8.8	12.5
1.9	3.5	4.9	7.0	6.1	11.4	15.6	22.1	2200	1.2	2.2	3.0	4.3	3.8	7.1	9.7	13.8
2.1	3.9	5.3	7.6	6.6	12.4	17.0	24.1	2400	1.3	2.4	3.3	4.7	4.1	7.7	10.6	15.0
2.2	4.2	5.8	8.2	7.2	13.5	18.4	26.2	2600	1.4	2.6	3.6	5.1	4.5	8.4	11.5	16.3
2.4	4.5	6.2	8.9	7.7	14.5	19.9	28.2	2800	1.5	2.8	3.9	5.5	4.8	9.0	12.3	17.5
2.6	4.8	6.6	9.5	8.3	15.5	21.3	30.2	3000	1.6	3.0	4.1	5.9	5.2	9.7	13.2	18.8
2.7	5.1	7.1	10.1	8.9	16.6	22.7	32.2	3200	1.7	3.2	4.4	6.3	5.5	10.3	14.1	20.0

845234

HYDRAULIC RESERVOIR

Normally the hydraulic system will not need additional fluid. Sometimes a leak may develop causing the system to require repair and refilling. If you notice hydraulic fluid escaping when the system is being used or if a leak is suspected, ***turn off all hydraulic functions and stop the engine.***

Check the hoses and fittings to determine where the fluid may be escaping from. If necessary, start the engine and using a piece of cardboard or similar material, check areas where the leak is suspected. Repair as needed.

WARNING

- **Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin, causing serious injury.**
- **After applying pressure to the system, use a piece of cardboard or wood, *NOT* your hands, to check for leaks.**
- **If injured by escaping fluid, see doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.**

Periodically check the hydraulic fluid level (hydraulic level should be checked every **100 hours** of operation). Loss of fluid can signal a small leak before it becomes worse.

To check the hydraulic fluid level:

1. Place vehicle on level surface. Fully lower any accessory attachment, including dump box. Stop the vehicle engine.
2. Remove the dipstick/breather plug from the top of the tank (See Figs. 74 and 75). Wipe the dipstick, then place in tank with the threaded flange resting on the tank (do not screw in). Fluid should show on the knurled portion of the dipstick (See Fig. 75). Add fluid as required.

   If additional fluid is needed, add **Ransomes Turf Protector Biodegradable hydraulic fluid.**
3. Screw the dipstick/breather plug securely in place.

   NOTE: ***Do Not*** overfill the hydraulic system. Severe damage may result.
   Always reinstall the dipstick/breather plug.

Hydraulic System Capacity:

Standard Hydraulics . . . . . 4 gal. (15.0 L)
Hi-Lo Hydraulics . . . . . 7.6 gal. (28.8 L)

Hydraulic Fluid (Biodegradable):

2 1/2 gal. (9.5 L) . . . . . Part No. 65363
5 gal. (19.0 L) . . . . . Part No. 65352
55 gal. (208.0 L) . . . . . Part No. 65354

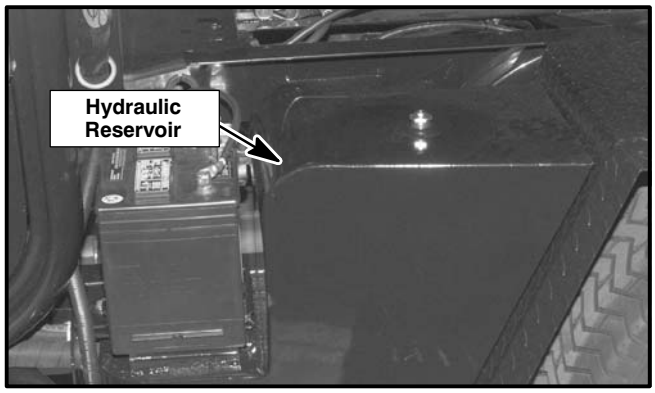


Figure 74
Hydraulic Reservoir Tank

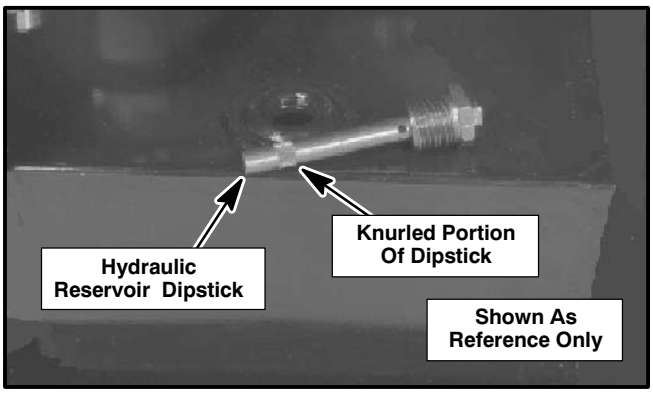
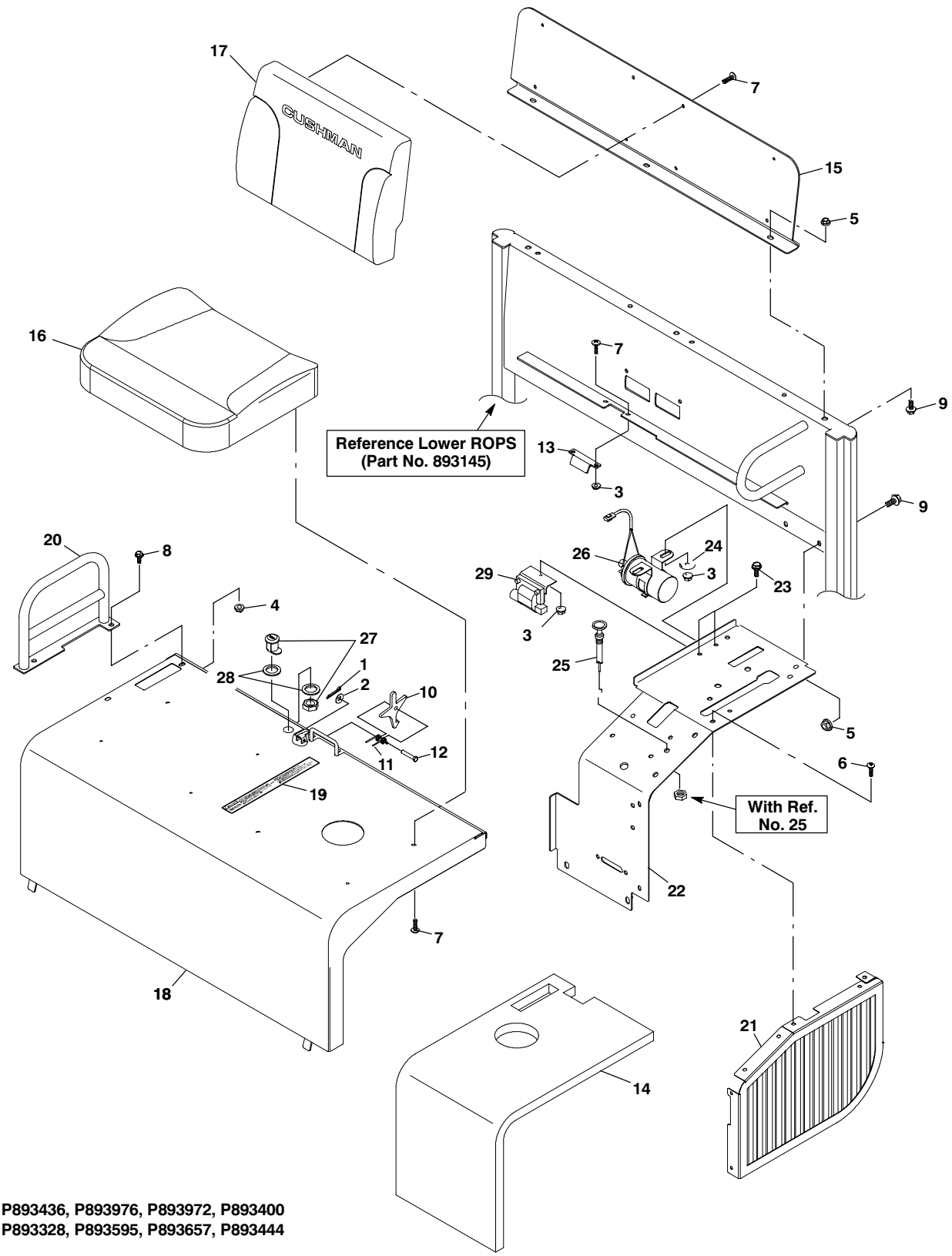


Figure 75
Hydraulic Tank Dipstick

ENGINE COVER



P893436, P893976, P893972, P893400
P893328, P893595, P893657, P893444

ENGINE COVER

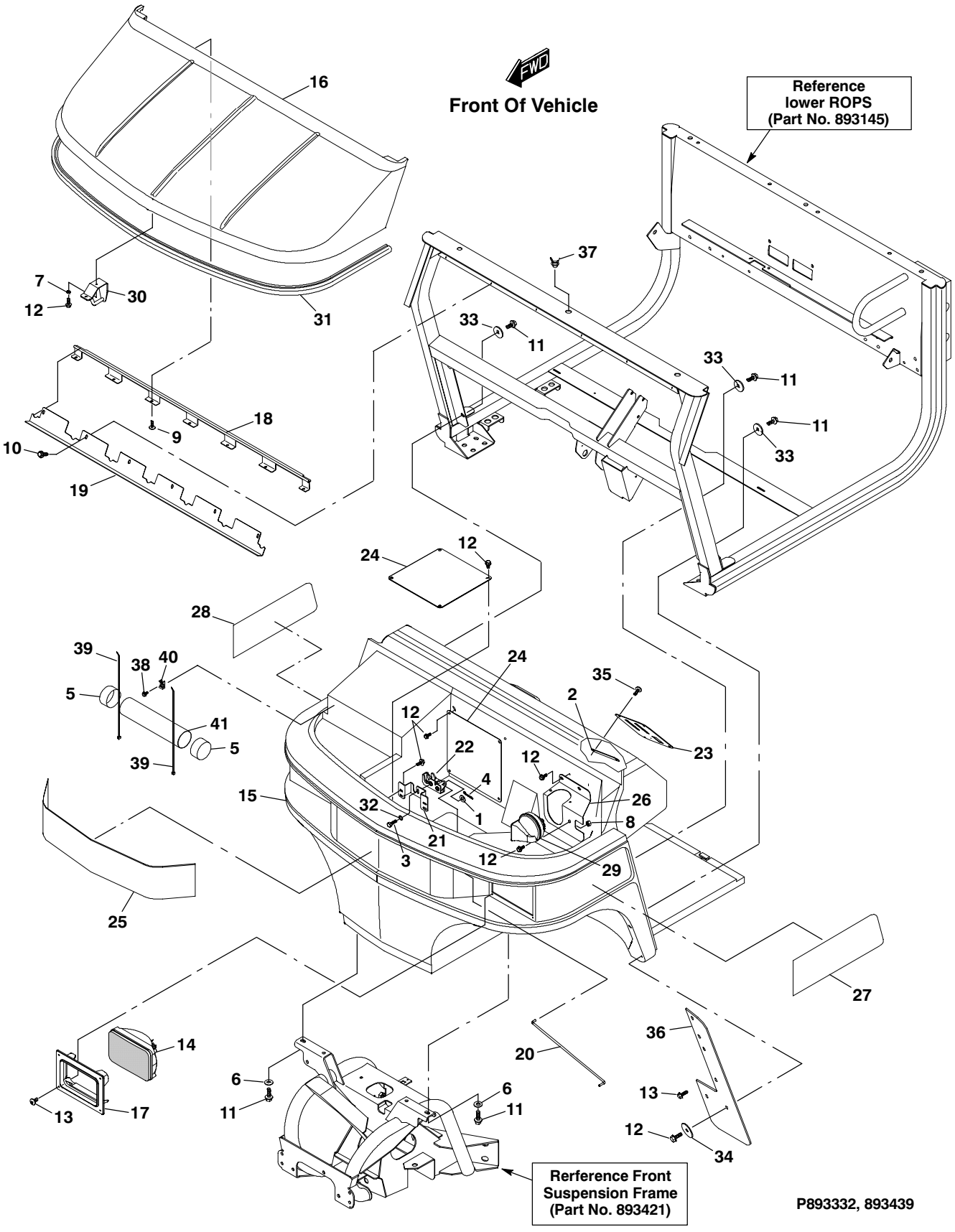
Ref. No.	Part No.	Description	No. Req'd
1	306328	Pin, cotter, .09 x .75	1
2	308090	Washer, 1/4	1
3	450452	Nut, M6-1.00 (G10.9)	4
4	450453	Nut, M8-1.25 (G10.9)	2
5	450454	Nut, M10-1.50 (G10.9)	5
6	800026	Screw, 1/4-20 x 3/4	7
7	450541	Screw, M6-1.00 x 16	18
8	452388	Screw, M8-1.25 x 20 (8.8)	2
9	452398	Screw, M10-1.50 x 20	5
10	523085	Bracket	1
11	816401	Spring, torsion	1
12	830784	Pin, clevis, .25 x 1.88	1
13	841789	Catch, engine cover latch	1
14	841804	Insulation, engine cover	3
15	842030	Mount, backrest	2
16	893321	Seat, base assembly	2
17	894822	Seat, back assembly	2
18	2700789	Cover, engine w/decal	1
19	845038	•Decal, Operation	1
20	893541	Handhold (right side)	1
21	894232	Cover, left	1
22	2700796	Panel, console w/decals (turf)	1
*	822819	•Decal, Warning, Park Brake	1
*	844177	•Decal, auxillary transmission	1
*	844179	•Decal, hydraulic controls	1
(22)	2700797	Panel, console (EC vehicles)	1
*	845185	•Decal, Warning, Park Brake (EC)	1
*	844177	•Decal, auxillary transmission	1
*	844179	•Decal, hydraulic controls	1
23	800934	Screw, M6-1.00 x 16 (G10.9)	2
24	548175	Washer, 1/4 x 1 1/4 dia.	1
25	841813	Cable, choke (Suzuki 970)	1
26	33410-85010	Coil, ignition (Suzuki 970)	1
27 ◆	840436	Lock, handle	1
28 ◆	309488	Washer	2
29	33410–50F20	Coil, ignition (Suzuki K6A).	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

* Not Illustrated.

◆ Although Item No's. 27 & 28 (handle lock and washers) are used on EC Models, they may be obtained for use on any of the models listed above.

BODY, HOOD and HEADLIGHTS



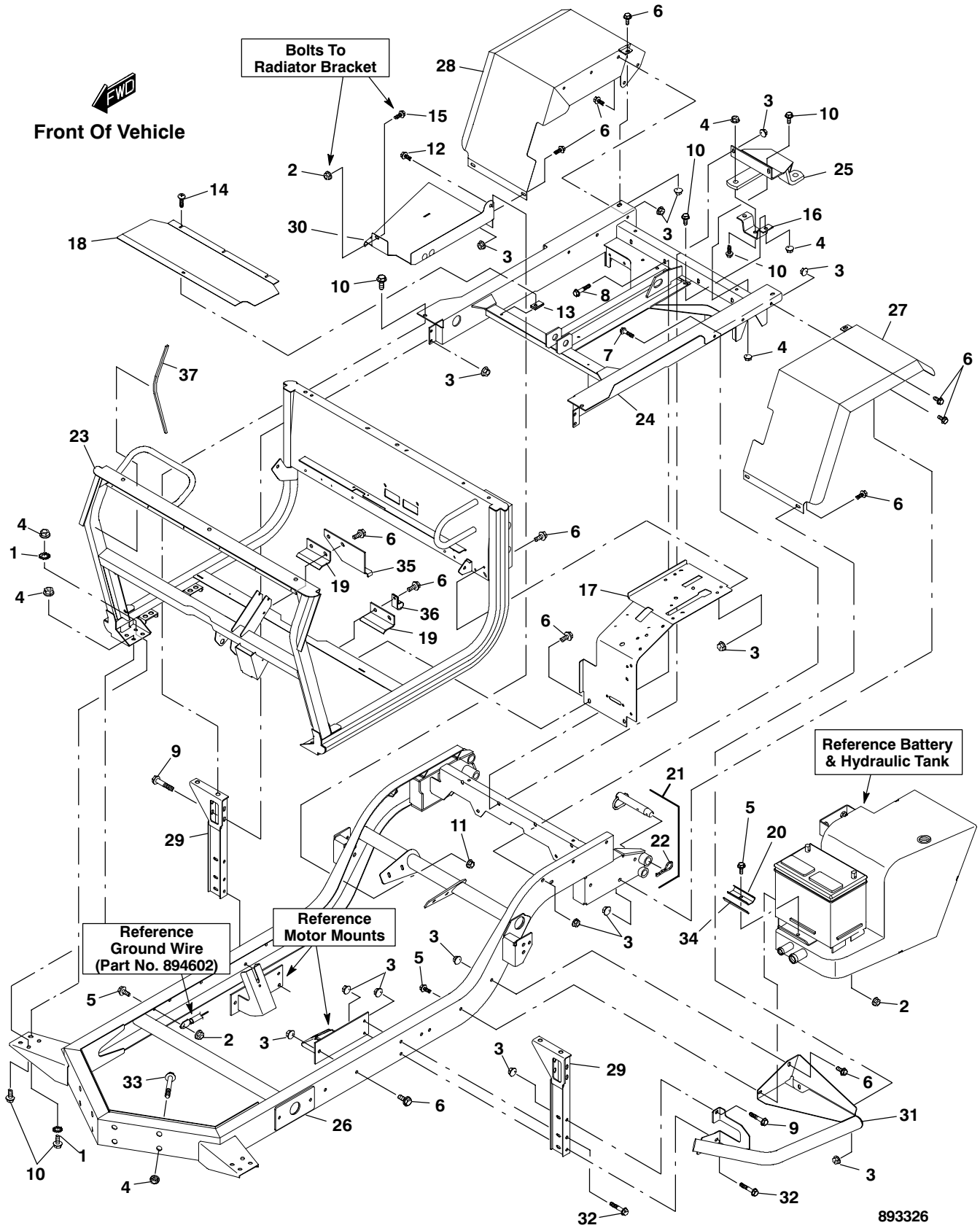
BODY, HOOD and HEADLIGHTS

Ref. No.	Part No.	Description	No. Req'd
1	303952	Washer, #10	1
2	894743	Nut ay., double 1/4-20	2
3	306419	Screw, 1/4-20 x 1/2	2
4	306463	Pin, cotter	1
5	38061A	Cap, vinyl	2
6	450400	Washer, M8	2
7	450410	Lockwasher, M6	2
8	450452	Nut, M6-1.00	1
9	450541	Screw, M6-1.00 x 16 (RPH)	7
10	452695	Screw, M6-1.00 x 20, taptite	6
11	800930	Screw, M8-1.25 x 16 (8.8)	6
12	800934	Screw, M6-1.00 x 16 (8.8)	25
13	800943	Screw, tap, #10-14	10
14	837303	Headlight, rectangular	2
15	2700792	Clip, front	1
*	821071	•Decal, notice not motor vehicle	1
*	840901	•Decal, Warning read ops. manual	1
16	843854	Hood, turf (green)	1
17	841428	Bezel, headlamp	2
18	841477	Hinge, hood	1
19	841637	Angle, front clip mount	1
20	841715	Rod, hood release	1
21	841753	Bracket, hood latch	1
22	841787	Latch, hood	1
23	841264	Panel, dash (left)	1
*	844116	Decal, left dash panel, turf	1
24	841913	Plate, access	2
25	74764	Decal, CUSHMAN	1
26	844167	Bracket, horn/brake reservoir	1
27	74792	Decal, turf-truckster (left)	1
28	74766	Decal, turf-truckster (right)	1
29	886090	Horn	1
30	894030	Striker, hood	1
31	844669	Seal, weather	As Req'd.
32	306488	Lockwasher, 1/4 shakeproof	2
33	548159	Washer, 5/16 (1 1/4" diameter)	4
34	548175	Washer, 1/4 (1 1/4" diameter)	8
35	800582	Screw, 1/4-20 x 3/4	4
36	844049	Flap, mud	2
37	844293	Plug	3
38	800344	Screw, tapping, #10 type AB	2
39	823549	Tie, cable, 15.5" (394 mm)	2
40	840508	Mount, cable tie	2
41	38541	Tube, document	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

* Not Illustrated.

FRAME


FWD
Front Of Vehicle
Bolts To Radiator Bracket
Reference Ground Wire (Part No. 894602)
Reference Motor Mounts
Reference Battery & Hydraulic Tank
893326

FRAME

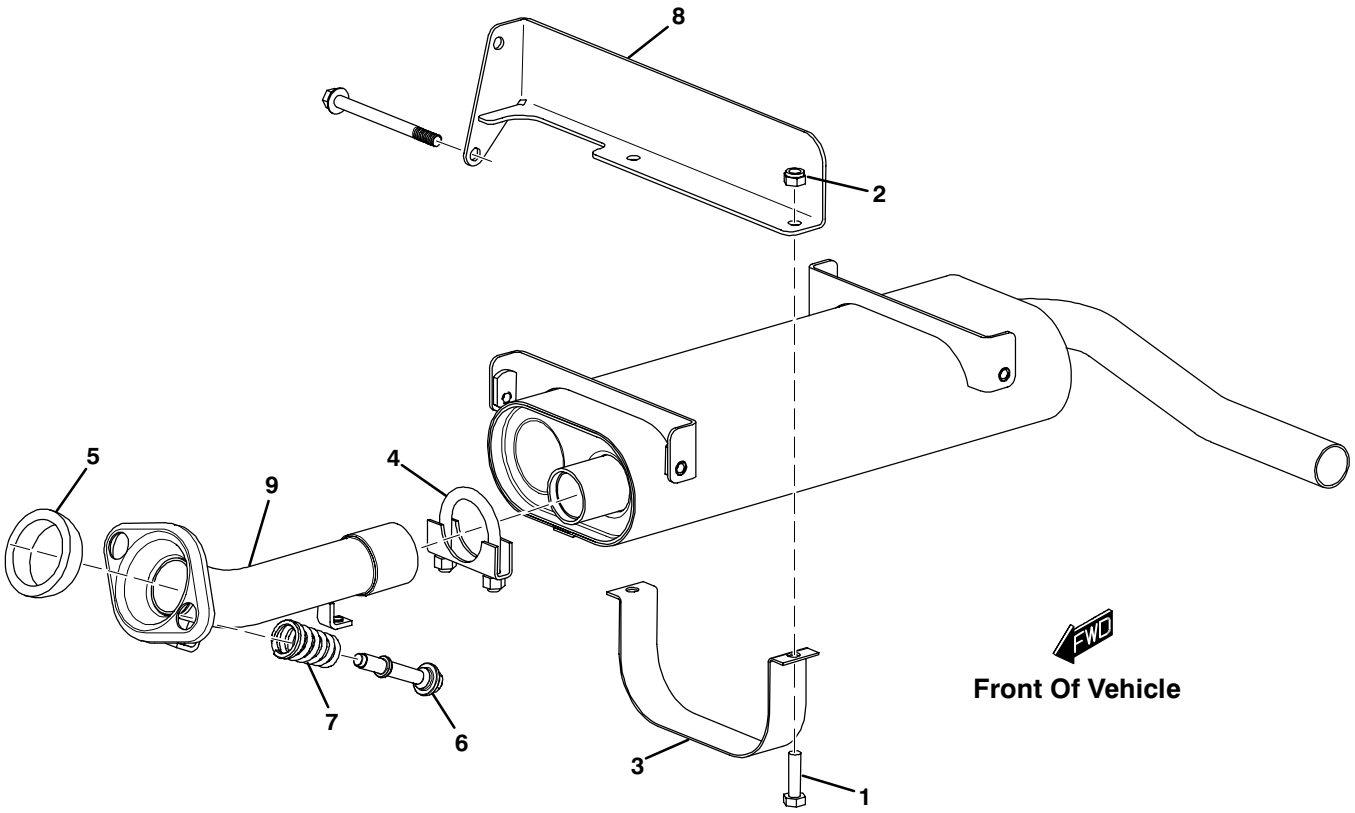
Ref. No.	Part No.	Description	No. Req'd
1	309067	Lockwasher, 1/2 shakeproof	2
2	450453	Nut, M8-1.25 (G10.9)	3
3	450454	Nut, M10-1.50 (G10.9)	40
4	450455	Nut, M12-1.75 (G10.9)	21
5	452389	Screw, M8-1.25 x 25 (8.8)	3
6	452398	Screw, M10-1.50 x 20 (8.8)	27
7	452402	Screw, M10-1.50 x 50 (8.8)	6
8	452403	Screw, M10-1.50 x 60 (8.8)	4
9	452405	Screw, M10-1.50 x 80 (8.8)	5
10	452410	Screw, M12-1.75 x 30 (8.8)	17
11	548911	Nut, 5/16-18	1
12	800177	Screw, 5/16-18 x 3/4	1
13	800279	Nut, speed, 1/4-20	4
14	800582	Screw, 1/4-20 x 3/4	4
15	800930	Screw, M8-1.25 x 16 (8.8)	1
16	841258	Bracket, drawbar	1
17	2700796	Panel, console, (turf)	1
*	822819	•Decal, Warning Park Brake	1
*	844177	•Decal, auxillary transmission	1
*	844179	•Decal, hydraulic controls	1
(17)	2700797	Panel, console, (turf)	1
*	845185	•Decal, Warning Park Brake (EC)	1
*	844177	•Decal, auxillary transmission	1
*	844177	•Decal, auxillary transmission	1
18	841805	Panel, access	1
19	842870	Angle, support	2
20	844601	Bracket, battery clamp	1
21	882971	Pin, disconnect	2
22	809265	•Pin, hair 25/32 x 2 11/16	1
23	893145	ROPS, lower	1
24	893199.7	Platform, turf	1
also	893199G	Platform, turf (galvanized)	1
25	893220	Drawbar, turf	1
26	893235	Frame, main	1
also	893235G	Frame, main (galv.)	1
27	893487	Fender (left)	1
28	893488	Fender (right)	1
29	893525	Support, platform	2
30	893527	Support, fuel tank	1
31	894711	Guard, hydraulic tank	1
32	452406	Screw, M10-1.50 x 90 (8.8)	4
33	452415	Screw, M12-1.75 x 80 (8.8)	8
34 ◆	844729	Spacer, battery hold-down	1
35	844647	Angle, hold-down	1
36	810437	Clamp, tube (Suzuki 970)	1
37	828382	Seal, foam	As Req'd.

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

***** Not Illustrated.

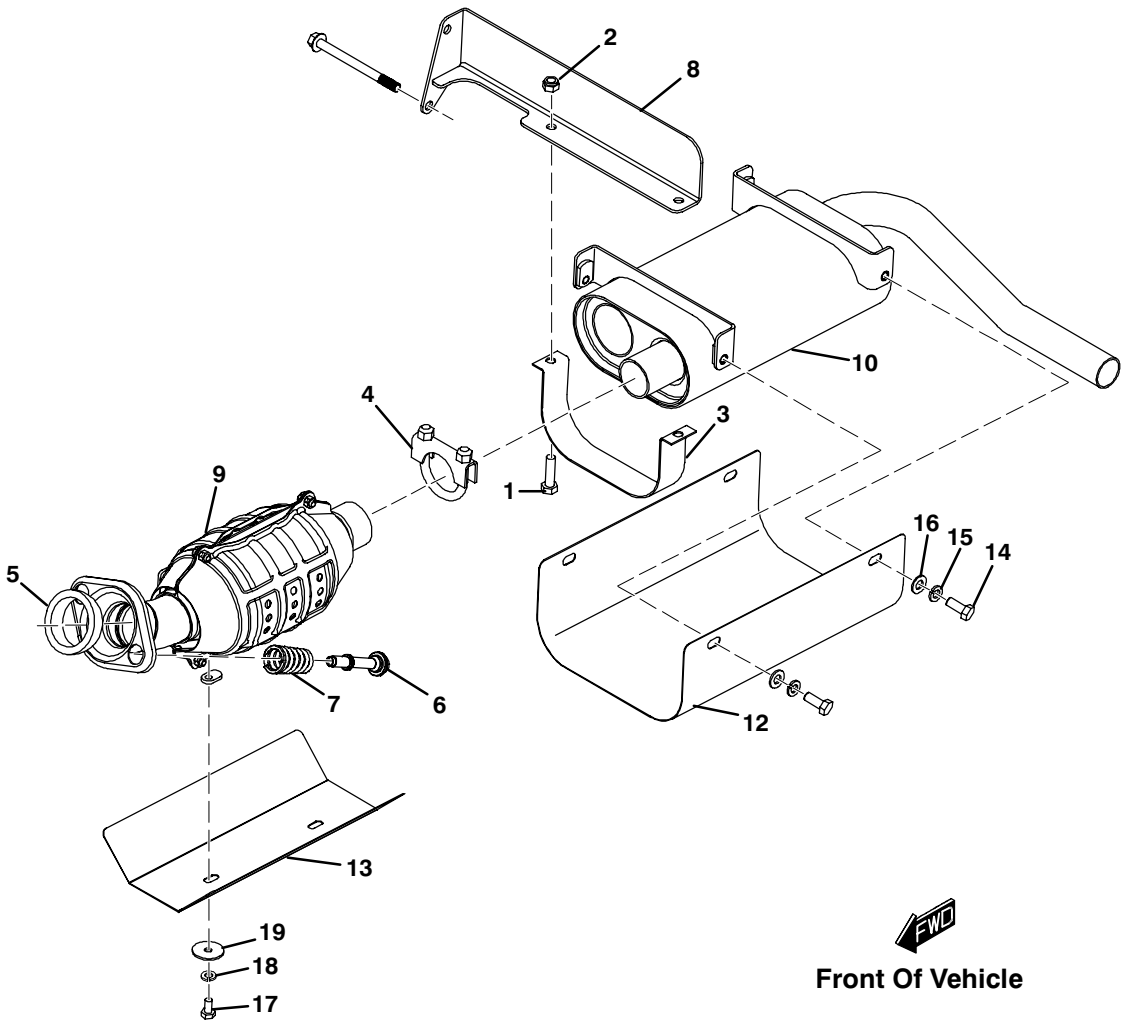
◆ Item No. 34 (Battery Hold-down Spacer, Part No. 844729) may not be used on all vehicles. If the battery clamp cannot be adjusted to properly secure the battery, this spacer will be required.

EXHAUST SYSTEM (SUZUKI K6A)



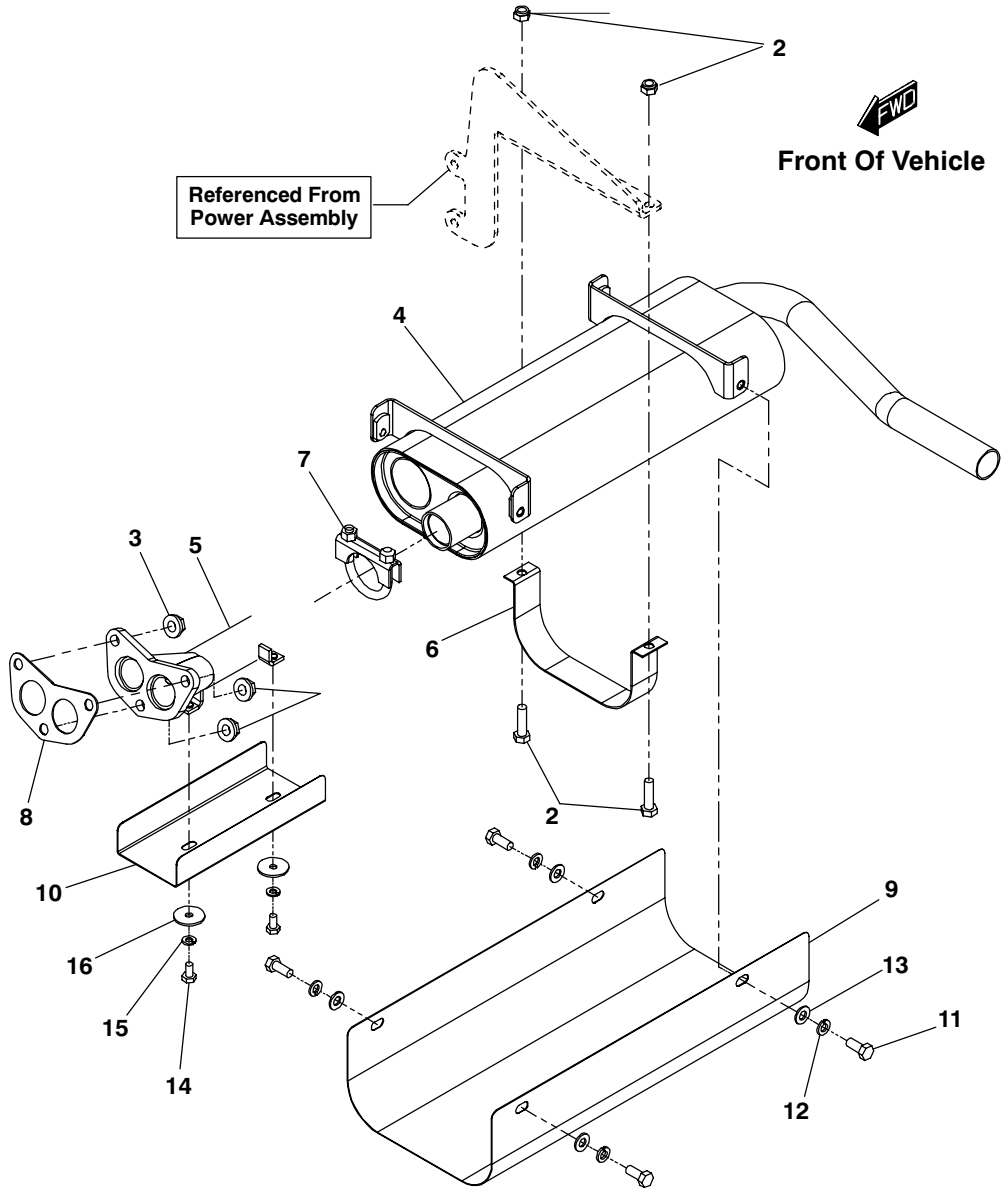
Ref. No.	Part No.	Description	No. Req'd
1	450193	Screw, M8-1.25 x 30	2
2	450378	Locknut, M8-1.25 staytite	2
3	838295	Strap, muffler hanger	1
4	841982	Clamp, exhaust tube (1 1/2")	1
5	2700143	Ring, muffler flange	1
6	2700144	Bolt, muffler flange	2
7	2700145	Spring, muffler flange	2
8	4114221.8	Bracket, muffler	1
9	36074-G01	Tube assy, muffler inlet	1
10	4119866.8	Muffler assy	1

CALIFORNIA EXHAUST SYSTEM
(CATALYTIC CONVERTER) (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	450193	Screw, M8-1.25 x 30	2
2	450378	Locknut, M8-1.25 staytite	2
3	8388295.8	Strap, muffler hanger	1
4	841982	Clamp, exhaust tube (1 1/2")	1
5	270143	Ring, muffler flange	1
6	2700144	Bolt, muffler flange	2
7	2700145	Spring, muffler flange0	1
8	41124517.8	Bracket, muffler	1
9	36072-G01	Converter AY, catalytic	1
10	4116284.8	Muffler assembly	1
11	841982	Decal, carb. Suzuki K6	1
12	412517.8	Shield, muffler	1
13	4121525.8	Shield, catalytic converter	1
14	306450	Screw, 5/16 – 18 X 3/4	4
15	306325	Lockwasher, 5/16	4
16	103867	Washer, 5/16	4
17	306419	Screw, 1/4	2
18	306396	Lockwasher, 1/4	2
19	815680	Washer. special	2

EXHAUST SYSTEM (SUZUKI 970)

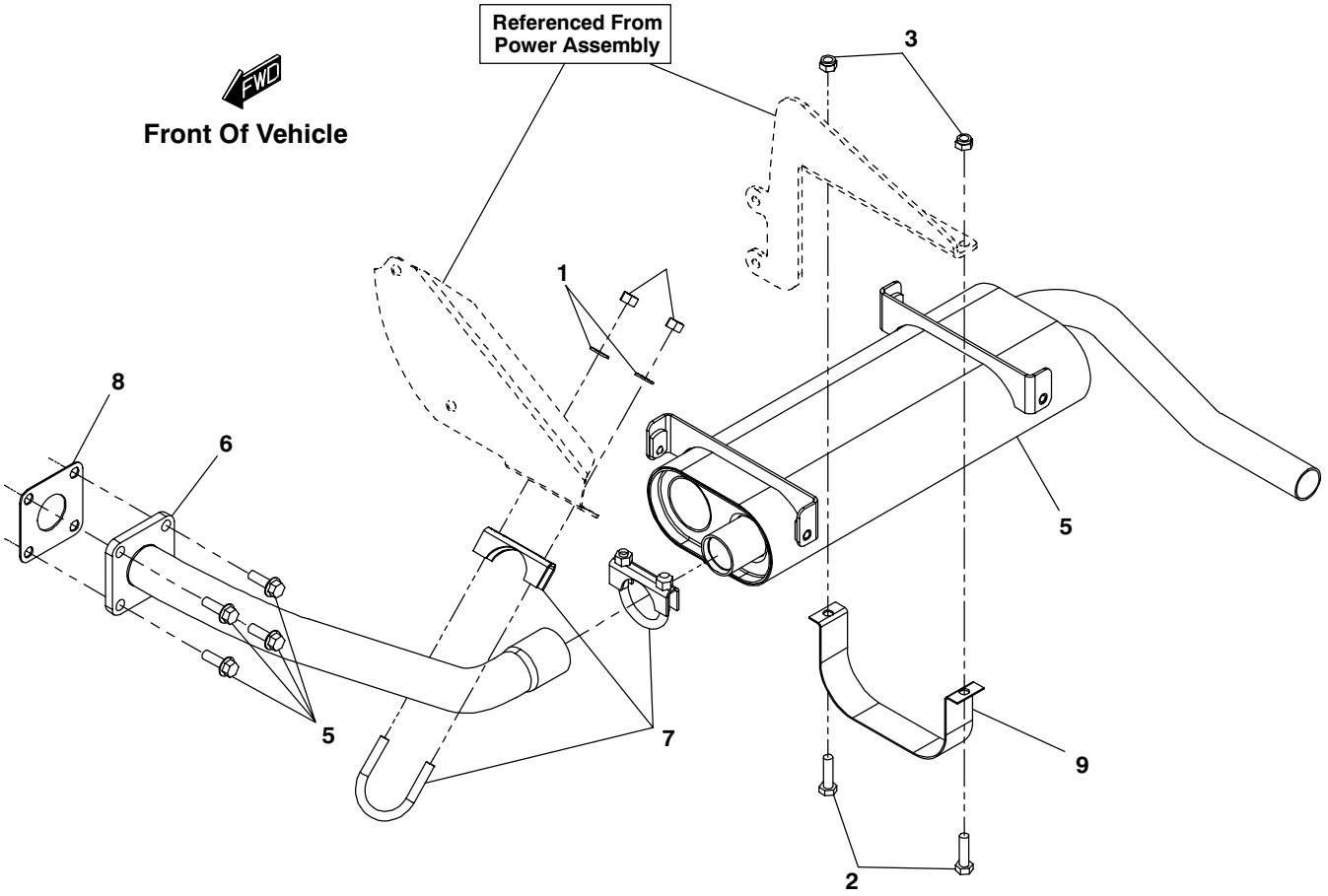


**NOTE: TAILPIPE TO BE 0.5" FROM FENDER.
TAILPIPE OUTLET TO BE PARALLEL TO GROUND.**

Ref. No.	Part No.	Description	No. Req'd
1	450193	Screw, M8-1.25 x 30	2
2	450378	Locknut, M8–1.25, Staytite	2
3	800821	Nut, M10–1.25	3
4	4119866.8	Muffler	1
5	4119868.8	Tube, inlet	1
6	838295.8	Strap, muffler hanger	1
7	841982	Clamp, exhaust tube (1 1/2")	1
8	843539	Gasket, exhaust, 5/16	1
9	4119867.8	Shield, muffler	1
10	4119869.8	Shield, inlet tube	1
11	306450	Screw, 5/16–18 x 3/4	4
12	306325	Lockwasher, 5/16	4
13	103867	Washer, 5/16	4
14	306419	Screw, 1/4–20 x 1/2	2
15	306396	Lockwasher, 1/4	2
16	815680	Washer, special	2

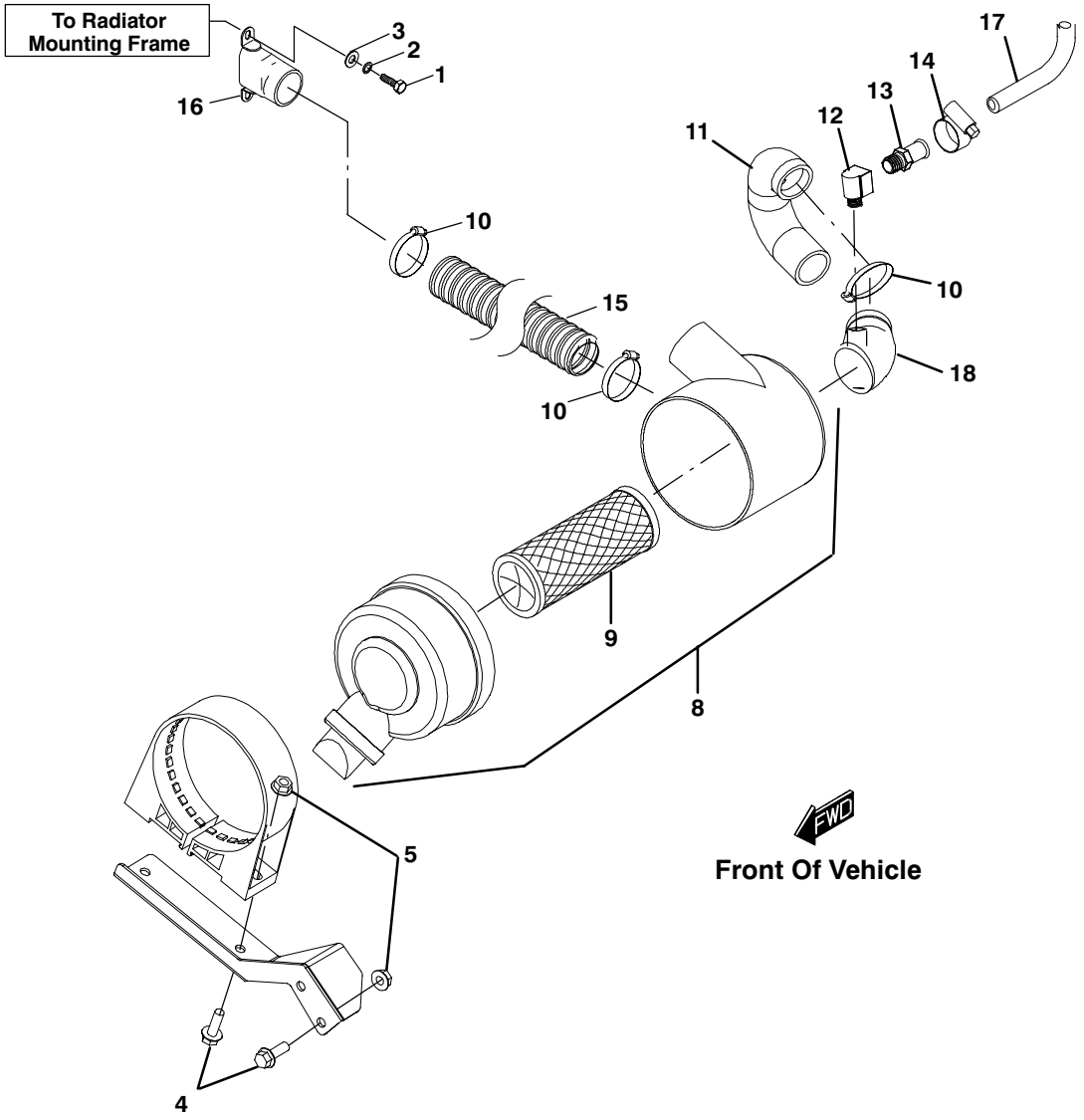
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

EXHAUST SYSTEM (DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	2
2	450193	Screw, M8-1.25 staytite	2
3	450378	Locknut, M8–1.25, staytite	2
4	452389	Screw, M8–1.25 x 25	4
5	4119866.8	Muffler ay	1
6	2703800.8	Tube, exhaust inlet	1
7	841982	Clamp, tubing	2
8	842234	Gasket, exhaust	1
9	838295.8	Strap, muffler hanger	1

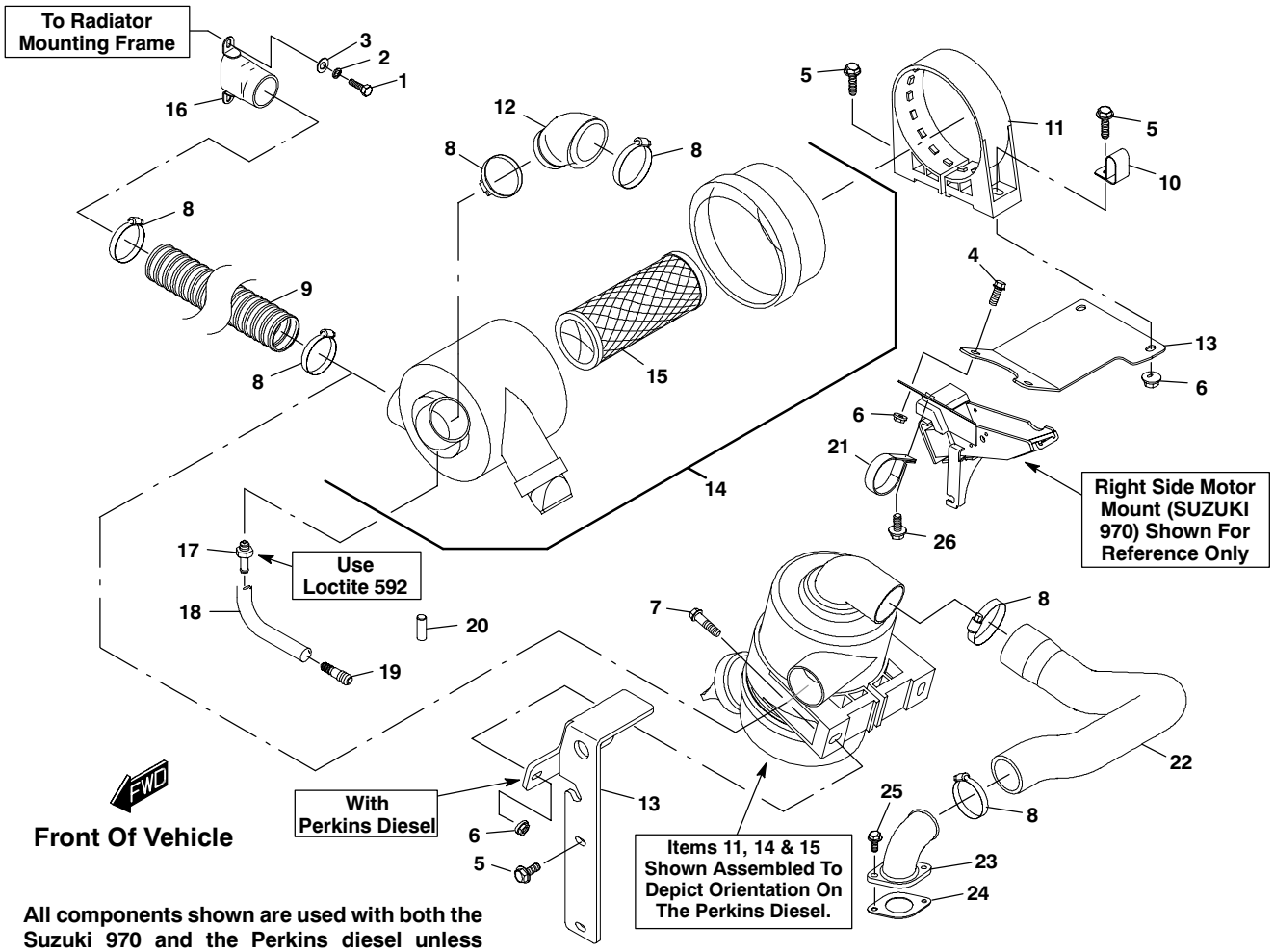
AIR CLEANER, BRACKET and FILTER
(SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	300646	Screw, 1/4-20 x 3/4	2	10	825358	Clamp, worm drive	4
2	306396	Lockwasher, 1/4	2	11	4115401	Hose, air cleaner	1
3	308090	Washer, 1/4	2	12	4118423	Elbow, street 1/4	1
4	452389	Screw, M8-1.25 x 25 (8.8)	5	13	4118422	Hose, barb-brass 1/4	1
5	450453	Nut, verbus rib M8	5	14	832033	Clamp, worm drive	2
6	4115792.7	Bracket, air cleaner	1	15	825724	Hose, air cleaner	1
7	842915	Bracket, filter	1	16	841230	Connector, 3/8T x 1/8MP	1
8	4118027	Filter assy, air	1	17	832246	Hose, 3/8 heater	As Req'd.
9	840352	•Element, air cleaner	1	18	843666	Hose, air inake	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

AIR CLEANER, BRACKET and FILTER
(SUZUKI 970 and DIESEL)



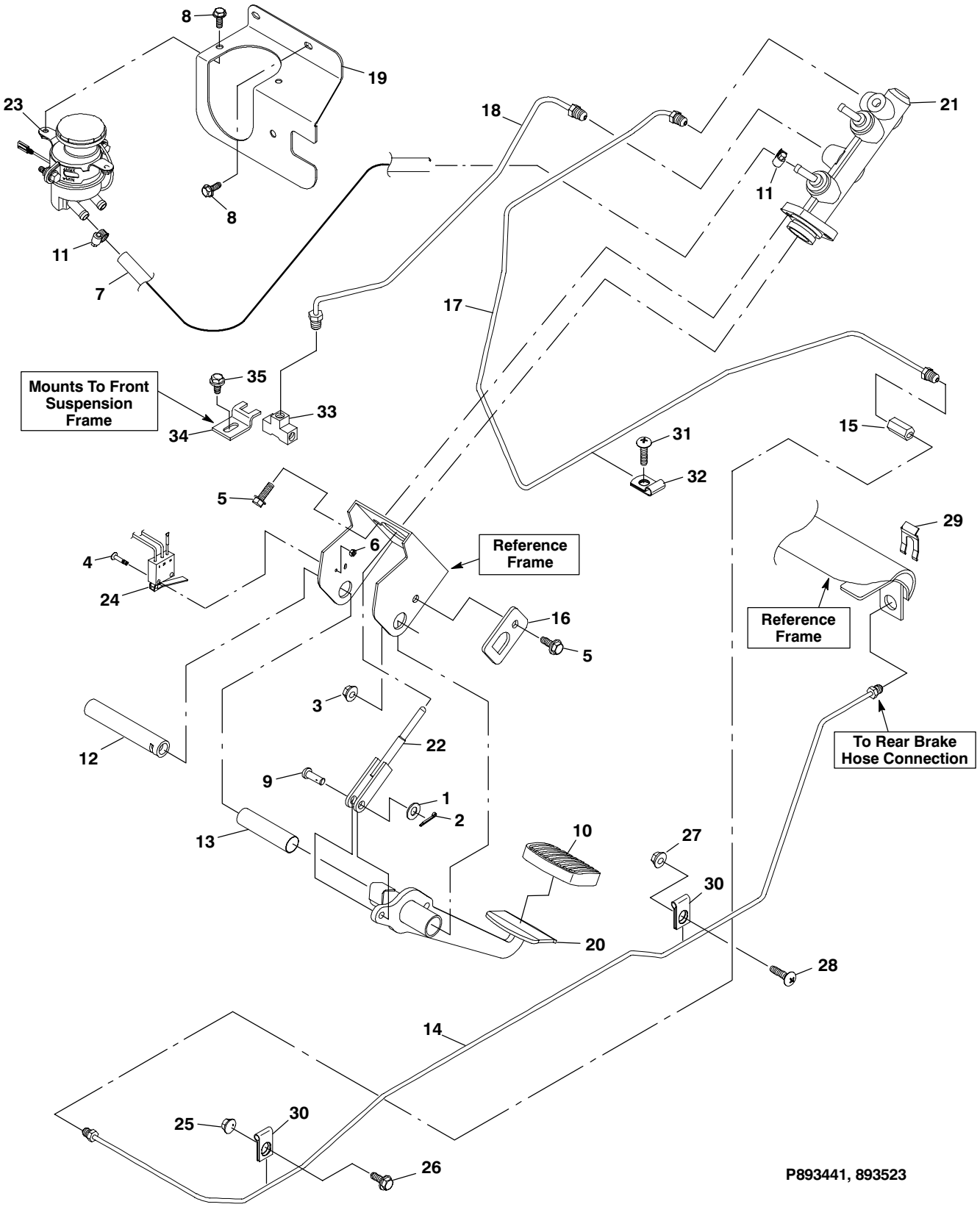
All components shown are used with both the Suzuki 970 and the Perkins diesel unless otherwise noted in the parts list shown below.

893444, 893594, 894197, 894198

Ref. No.	Part No.	Description	No. Req'd
1	300646	Screw, 1/4-20 x 3/4	2
2	306396	Lockwasher, 1/4	2
3	308090	Washer, 1/4	2
4	452388	Screw, M8-1.25 x 20 (8.8)	2
5	452389	Screw, M8-1.25 x 25 (8.8)	2
6	450453	Nut, M8-1.25 (8.8) (Perkins)	2
(6)	450453	Nut, M8-1.25 (8.8) (Suzuki 970)	4
7	452390	Screw, M8-1.25 x 30 (8.8) (Perkins)	2
8	825358	Clamp, worm-drive	4
9	825724	Hose, air cleaner	1
10	817320	Clamp	1
11	842915	Bracket, air filter	1
12	843666	Hose, air intake	1
13	843715	Bracket, air cleaner (Suzuki 970)	1
(13)	844311	Bracket, air cleaner (Perkins)	1
14	893182	Filter complete, air	1
15	840352	•Element, air cleaner	1
16	888549	Connector, hose (air cleaner)	1
17	841230	Connector (Suzuki 970)	1
18	832246	Hose, 3/8" heater (Suzuki 970)	As Req'd.
19	843831	Connector, hose (Suzuki 970)	1
20	842997	Cap, 7/64 i.d. x 3/4 (Suzuki 970)	1
21	825884	Clamp, tube/wire (Suzuki 970)	1
22	844313	Hose, intake (Perkins)	1
23	841943	Inlet, air (Perkins)	1
24	842235	Gasket, air inlet (Perkins)	1
25	452378	Screw, M6-1.00 x 20 (Perkins)	1
26	800934	Screw, M6-1.00 x 16 (970)	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

HYDRAULIC BRAKE LINES

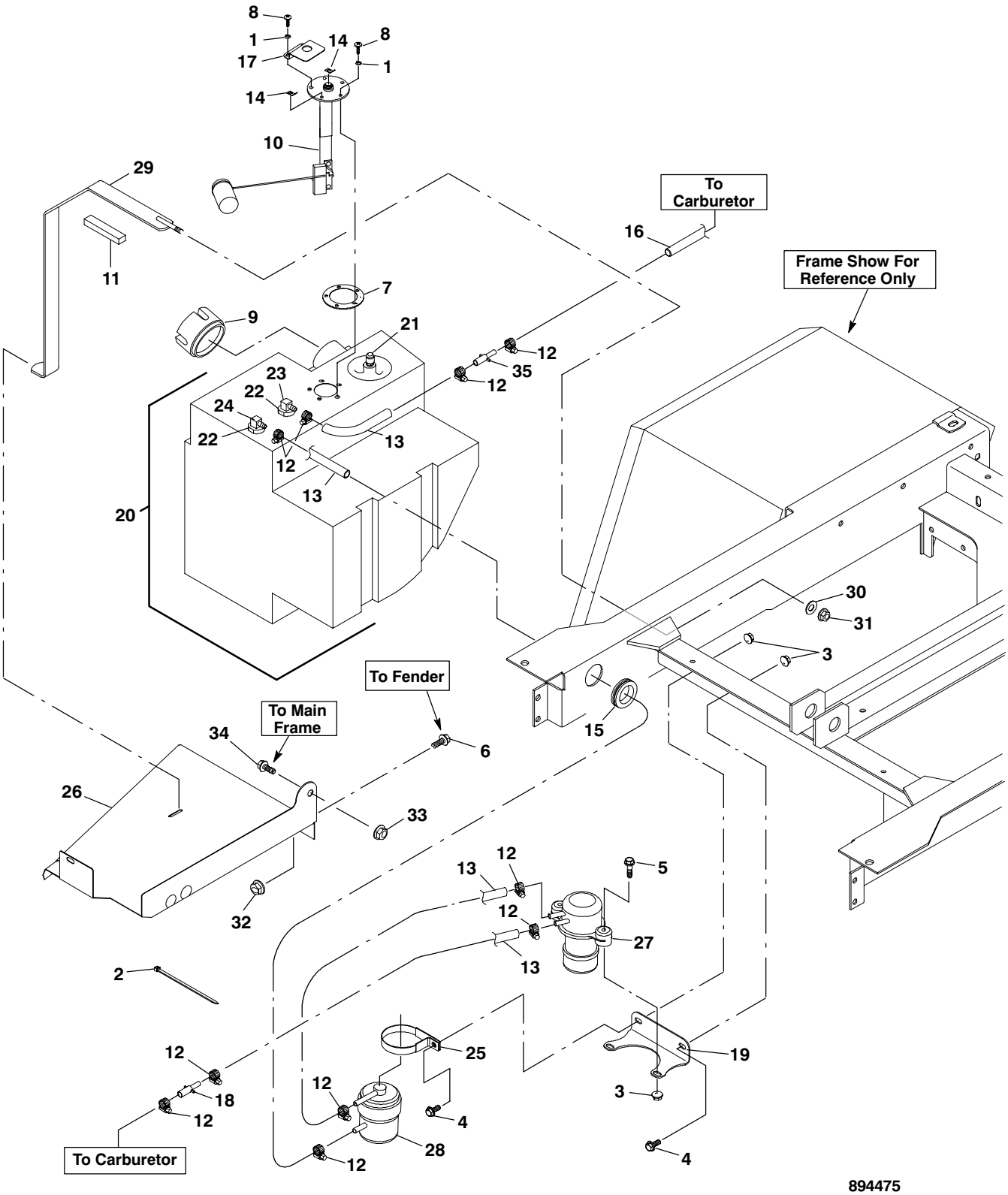


HYDRAULIC BRAKE LINES

Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	1
2	306328	Pin, cotter, 3/32 x 3/4	1
3	450453	Nut, M8-1.25 (G10.9)	1
4	450510	Screw, M3-.50 x 20 (G10.9)	2
5	452388	Screw, M8-1.25 x 20 (8.8)	3
6	452424	Nut, M3-.50	2
7▼	845380	Hose, 5/16" brake	As Req'd.
8	800934	Screw, M6-1.00 x16 (8.8)	4
9	806714	Pin, clevis 5/16 x 15/16	1
10	810152	Cover, brake pedal	1
11	825624	Clamp, hose	4
12	840725	Pin, brake pivot	1
13	840726	Bearing, brake pivot	1
14	842051	Tube, brake line rear	1
15	842103	Union, brake fitting (metric)	1
16	842935	Tab, locking	1
17	843022	Tube, rear brake	1
18	843021	Tube, front brake	1
19	844167	Bracket, reservoir mounting	1
20	892921	Lever, brake	1
21	895113	Cylinder, brake (dual)	1
22	894167	Rod, brake	1
23	894456	Reservoir, brake fluid	1
24	890808	Switch, micro	1
25	450454	Nut, M10-1.50 (G10.9)	1
26	452398	Screw, M10-1.50 x 20 (8.8)	1
27	548910	Nut, 1/4-20	1
28	800026	Screw, 1/4-20 x 3/4	1
29	809137	Clip	1
30	810435	Clamp	2
31	800943	Screw, tap #10-14 x 5/8	1
32	812445	Clamp, tube/wire	1
33	841842	Tee, M10-1.00	1
34	843418	Clamp, tee	1
35	452692	Screw, tap M6-1.00 x 12	1

▼ The brake hose (Part No. 845380) is serviced as a 6' (1,829 mm) length.

FUEL SYSTEM (SUZUKI K6A and 970)

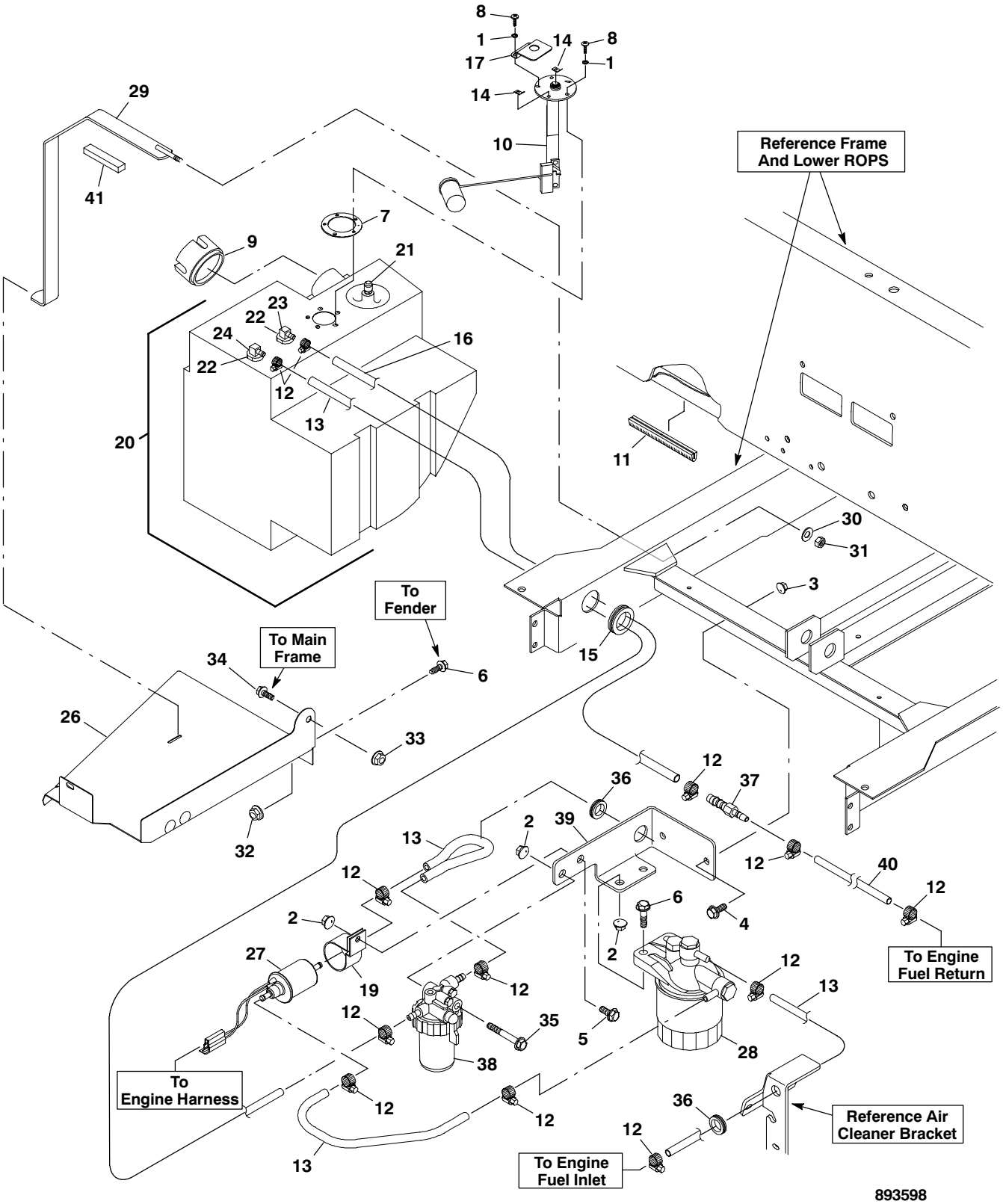


FUEL SYSTEM (SUZUKI K6A and 970)

Ref. No.	Part No.	Description	No. Req'd
1	120052	Lockwasher, #10	5
2	320107	Tie, cable, 7 1/2" (190.5 mm)	2
3	450452	Nut, M6-1.00 (G10.9)	4
4	452378	Screw, M6-1.00 x 20	2
5	452380	Screw, M6-1.00 x 30 (8.8)	2
6	452398	Screw, M10-1.5 x 20 (8.8)	2
7	829954	Gasket	1
8	800021	Screw, #10-32 x 1/2	5
9	843343	Cap fuel (unvented)	1
10	843298	Sender, fuel	1
11	833851	Seal, foam	As Req'd.
12	825624	Clamp, hose	10
13	826590	Hose, fuel, 5/16 i.d.	As Req'd.
14	829787	Terminal, 45° 1/4 male	2
15	829997	Grommet	1
16	830425	Hose, fuel, 1/4 i.d.	As Req'd.
17	833953	Cover, fuel sender	1
18	834037	Connector, hose	1
19	841769	Bracket, reservoir mounting	1
20	841969	Tank, fuel	1
21	836852	•Breather	1
22	84310	•Grommet	2
23	843727	•Elbow, 90°	1
24	843726	•Tube, fuel pick-up	1
25	842800	Clamp, filter	1
26	893527	Support, fuel tank	1
27	15100-53F03	Pump, fuel	1
28	15410-50F00	Filter, fuel	1
29	893555	Strap, fuel tank	1
30	103867	Washer, 5/16	1
31	800221	Nut, crownlock, 5/16-24	1
32	450454	Nut, M10-1.50 (10.9)	2
33	548911	Nut, 5/16-18	1
34	800177	Screw, 5/16-18 x 3/4	1
35	845189	Connector, hose	1

• INDENTED PARTS NAME INDICATE THESE PARTS ARE INCLUDED WITH THE PRECEDING ASSEMBLY

FUEL SYSTEM (DIESEL)



FUEL SYSTEM (DIESEL)

Ref. No.	Part No.	Description	No. Req'd
1	120052	Lockwasher, #10	5
2	450453	Nut, M8-1.25 (G10.9)	4
3	450452	Nut, M6-1.00 (G10.9)	2
4	452378	Screw, M6-1.00 x 20	2
5	452389	Screw, M8-1.25 x 25 (8.8)	1
6	452390	Screw, M8-1.25 x 30 (8.8)	2
7	829954	Gasket	1
8	800021	Screw, #10-32 x 1/2	5
9	843343	Cap fuel (unvented)	1
10	843298	Sender, fuel	1
11	821893	Trim, push-on	As Req'd.
12	825624	Clamp, hose	12
13	826590	Hose, fuel, 5/16 i.d.	As Req'd.
14	829787	Terminal, 45° 1/4 male	2
15	829997	Grommet	1
16	830425	Hose, fuel, 1/4 i.d.	As Req'd.
17	833953	Cover, fuel sender	1
18	834037	Connector, hose	2
19	838154	Bracket, fuel pump mounting	1
20	841969	Tank, fuel	1
21	836852	•Breather	1
22	84310	•Grommet	2
23	843727	•Elbow, 90°	1
24	843726	•Tube, fuel pick-up	1
25	842800	Clamp, filter	1
26	893527	Support, fuel tank	1
27	894638	Pump, fuel	1
28	2208175	Filter, fuel	1
29	893555	Strap, fuel tank	1
30	103867	Washer, 5/16	1
31	800697	Nut, crownlock, 5/16-18	1
32	450454	Nut, M10-1.50 (10.9)	2
33	548911	Nut, 5/16-18	1
34	800177	Screw, 5/16-18 x 3/4	1
35	452394	Screw, M8-1.25 x 70 (8.8)	1
36	809231	Grommet	2
37	834036	Connector, hose	1
38	130306180	Pre-filter, fuel	1
39	843534	Bracket, fuel filter	1
40	831039	Hose, fuel 5/32 i.d.	As Req'd.
41	833851	Seal, foam	As Req'd.

• INDENTED PARTS NAME INDICATE THESE PARTS ARE INCLUDED WITH THE PRECEDING ASSEMBLY

Certain engine parts will need to be ordered directly from Perkins. Ref No. 38, Fuel Pre-filter, shows the Perkin's part number and is one of the parts which would be obtained from Perkin's.

When ordering from Perkin's be sure to include the Engine Model and Spec No's.

The model and specification numbers for the Perkins engine are as follows:

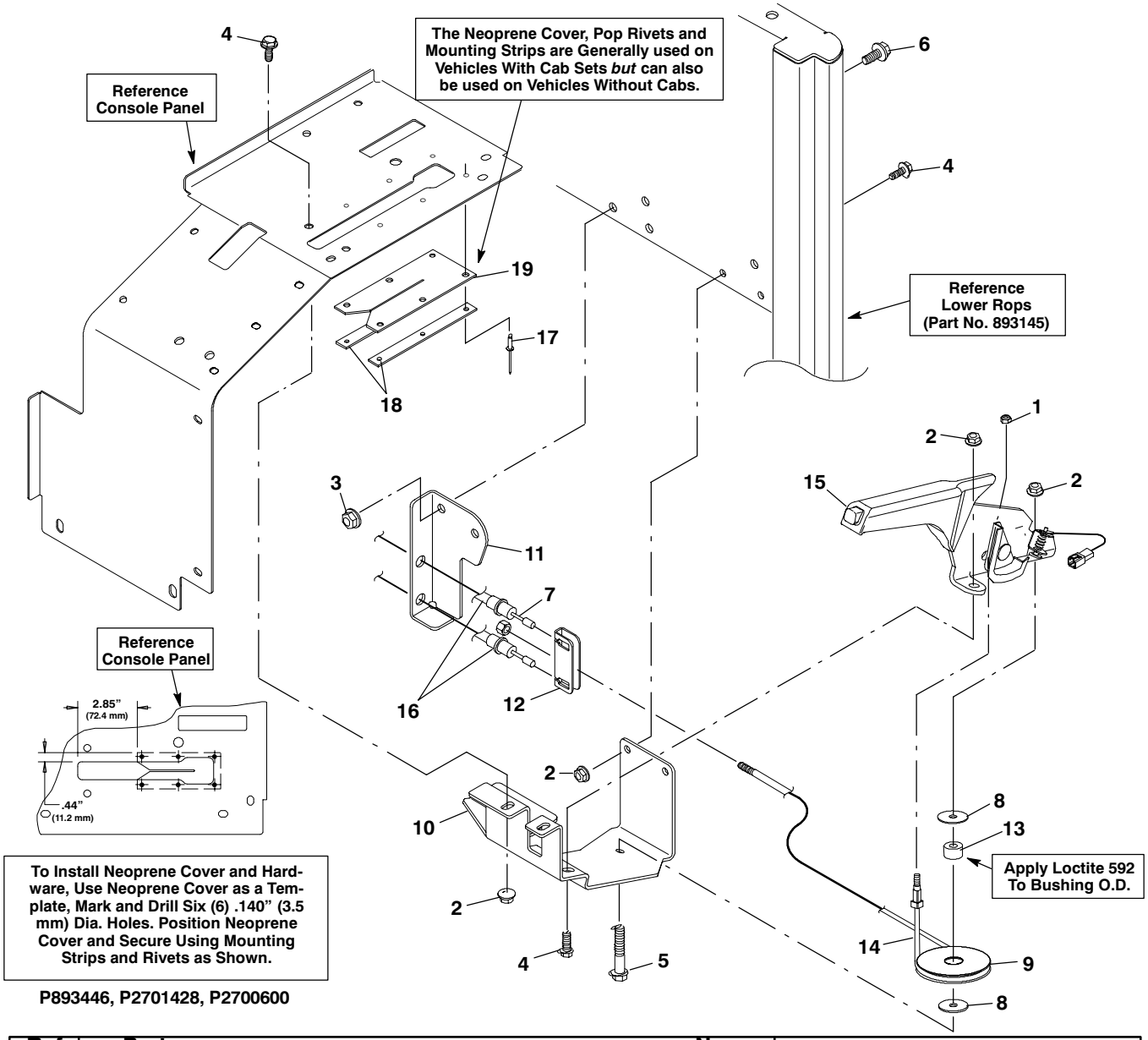
Model 103.10 - Spec. KD70377.

To locate the Perkin's Dealer nearest to you, please call: **1-888-737-5364**

The parts listed below can be ordered from the Cushman Parts Department.

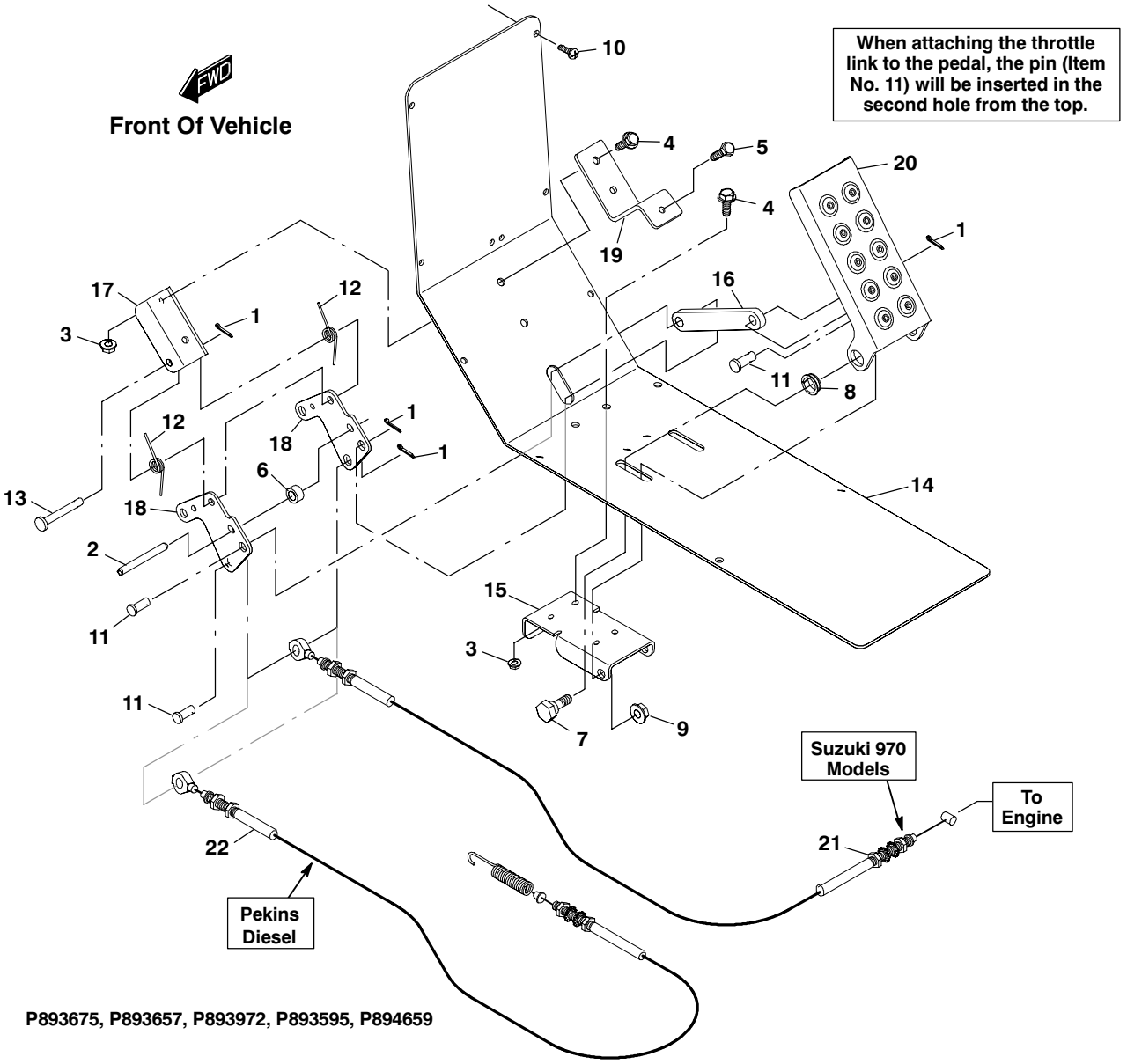
Ref. No.	Part No.	Description	No. Req'd
1	842553	Filter, oil	1
2	842555	Gasket, manifold	1
3	842235	Gasket, inlet	1
4	2208175	Filter, fuel	1

PARK BRAKE LEVER AND CABLE



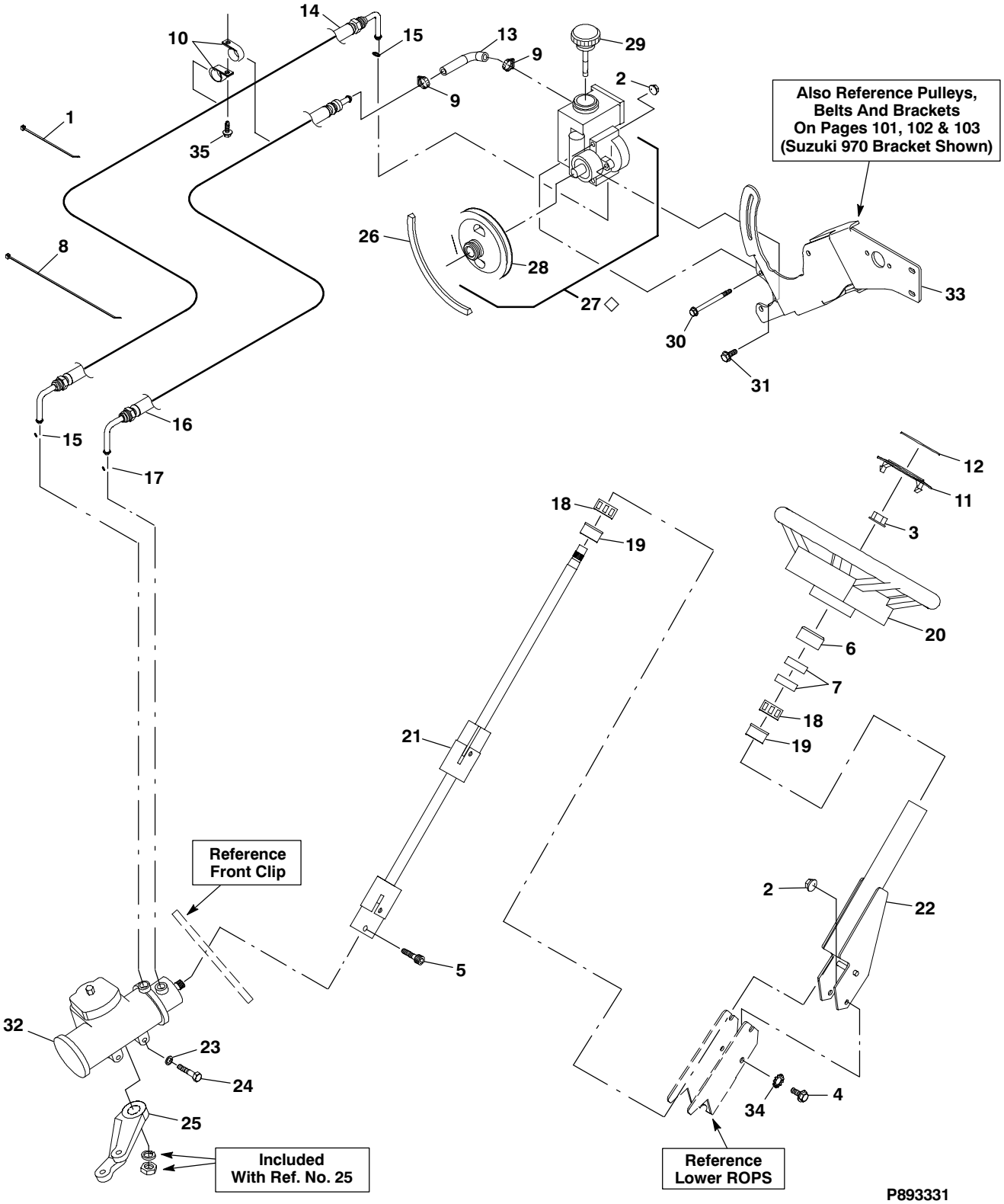
Ref. No.	Part No.	Description	No. Req'd	Notes
1	450377	Nut, staytite, M6-1.00	1	
2	450453	Nut, M8-1.25 (G10.9)	6	
3	450454	Nut, M10-1.50 (10.9)	2	
4	452388	Screw, M8-1.25 x 20 (G8.8)	5	
5	452391	Screw, M8-1.25 x 40 (8.8)	1	
6	452398	Screw, M10-1.50 x 20 (8.8)	2	
7	800446	Locknut, 5/16-24	1	
8	809152	Washer, 5/16 x 1 3/16	2	
9	827182	Pulley, 3" dia. (76 mm dia.)	1	
10	845134	Bracket, park brake lever	1	
11	843158	Bracket, park brake cable	1	
12	843356	Equalizer, park brake	1	
13	843359	Bushing, park brake	1	
14	845133	Cable, park brake	1	
15	894317	Lever, park brake	1	
16	893583	Cable, park brake (to rear brakes)	2	
17	133741	Rivet, pop (.12 .5 clsd. end)	6	
18	2701335	Mounting, park brake	1	
19	2701336	Cover, parking brake	1	

FOOT THROTTLE and LINKAGE



Ref. No.	Part No.	Description	No. Req'd
1	306328	Pin, cotter, 3/32 x 3/4	4
2	844224	Pin, roll 3/16 x 1 3/4"	2
3	450452	Nut, M6-1.00 (G10.9)	6
4	452378	Screw, M6-1.00 x 20	6
5	452695	Screw, M6-1.00 x 20, taptite	1
6	515268	Bushing	2
7	524633	Screw, shoulder 5/16-18 x 1	2
8	524643	Bearing, split	2
9	548911	Nut, 5/16-18	2
10	800943	Screw, tap, #10-14 x 5/8	10
11	806714	Pin, clevis, 5/16 x 3/4	3
12	844223	Spring, torsion	2
13	830784	Pin, clevis, 1/4 x 1 7/8	1
14	841663	Panel, floor access	1
15	843360	Channel, mount	1
16	843561	Link, throttle	1
17	843562	Mount, channel	1
18	843563	Plate, pivot	2
19	843997	Bracket, stop	1
20	894159	Pedal, throttle	1
21	894540	Cable, throttle (Suzuki Models)	1
22	894618	Cable, throttle (Perkins)	1

STEERING WHEEL, STEERING SHAFT, CONNECTING HOSES
POWER STEERING PUMP and STEERING GEAR



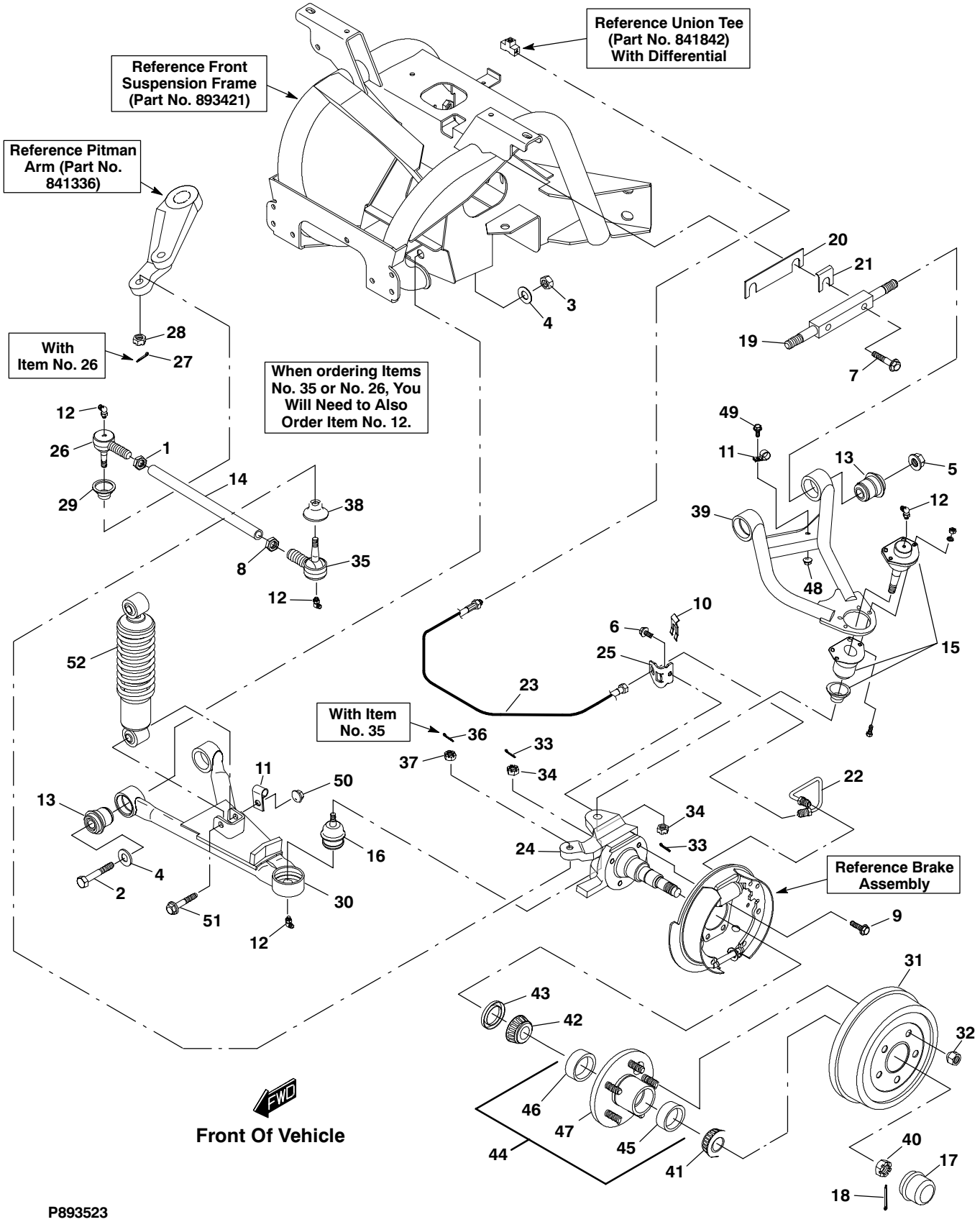
STEERING WHEEL, STEERING SHAFT, CONNECTING HOSES POWER STEERING PUMP and STEERING GEAR

Ref. No.	Part No.	Description	No. Req'd
1	320107	Tie, cable, 7 1/2" (190 mm)	3
2	450453	Nut, M8-1.25 (G10.9)	4
3	450457	Nut, M16-2.00	1
4	800930	Screw, M8-1.25 x 16 (8.8)	2
5	450739	Screw, socket head M10-1.50 x 30 (8.8)	1
6	2700453	Cover	1
7	819923	Collar, foam	2
8	823549	Tie, cable, 15 1/2" (394 mm)	2
9	830930	Clamp	2
10	809092	Clamp, tube	2
11	892486	Cover, steering wheel center	1
12	839862	•Decal, steering wheel	1
13	840222	Hose, 3/8 i.d. x 90° elbow	1
14	843767	Hose, steering pressure	1
15	111838	•'O'-Ring	2
16	843768	Hose, steering return	1
17	111838	•'O'-Ring	1
18	808060	Bearing, needle	2
19	828590	Housing, bearing	2
20	892228	Wheel, steering (w/o horn)	1
21	893344	Shaft, steering	1
22	893571	Tube, steering mount	1
23	303269	Lockwasher, 7/16	3
24	311392	Screw, 7/16-14 x 2	3
25	841336	Arm, pitman	1
26	844301	V-belt, 48" (1219 mm) Perkins	1
(26)	836854	V-belt, 42" (1067 mm) Suzuki 970	1
27 ◇	892534	Pump, power steering	1
28	839907	•Pulley, steering pump	1
29	2700573	•Cap, steering pump reservoir	1
30	452394	Screw, M8-1.25 x 70 (8.8)	2
31	452388	Screw, M8-1.25 x 20 (8.8)	4
32	841255	Gear, power steering	1
33	894362	Bracket, steering pump and alt. mounting (Suzuki 970)	1
(33)	844268	Bracket, steering pump, rear (Perkins Diesel)	1
also	844272	Mount, engine, right (Perkins Diesel)	1
34	306799	Lockwasher, 5/16 external, shakeproof	2
35	800943	Screw, tap, #10-24 x 5/8	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEEDING ASSEMBLY.

◇ Service Parts for the pump are available at automotive centers. Refer to 1991-92 Buick Regal with a 3.8L V6 engine (Saginaw Pump #26025515).

FRONT SUSPENSION (LEFT SIDE) and TIE RODS



FRONT SUSPENSION (LEFT SIDE) and TIE RODS

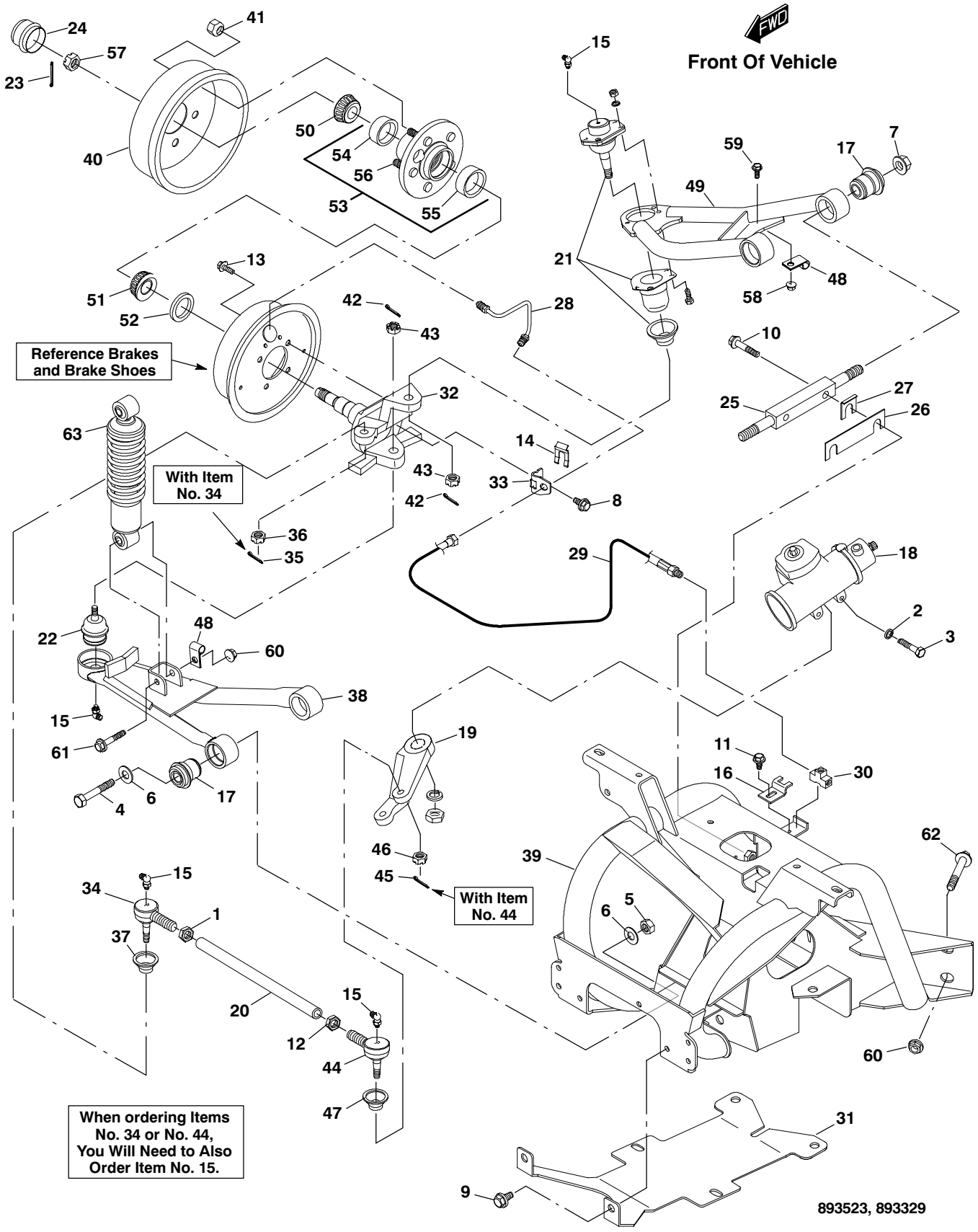
Ref. No.	Part No.	Description	No. Req'd
1	302944	Nut, jam, 9/16-18	1
2	450077	Bolt, M16-2.00 x 90	2
3	450382	Nut, M16-2.00, locking insert	2
4	450393	Washer, M16	4
5	450457	Nut, M16-2.00, flange (G10.9)	2
6	452398	Screw, M10-1.5 x 20 (8.8)	1
7	800945	Bolt, M12-1.75 x 60 (G10.9)	2
8	800485	Nut, 9/16-18, left-hand	1
9	800919	Bolt, M10-1.5 x 30 (G10.9)	4
10	809137	Clip	1
11	810437	Clamp	4
12	831405	Fitting, grease, 1/4-28 (90°)	4
13	841167	Bushing, silentbloc	4
14	841404	Rod, tie	1
15	844148	Ball joint, upper	1
16	841429	Ball joint, lower	1
17	817250	Cap, grease	1
18	304636	Pin, cotter 1/8 x 1 1/8"	1
19	841630	Trunnion, control arm	1
20	841737	Shim, .060"	4
21	841738	Shim, .024"	2
22	841840	Tube, brake (left)	1
23	841841	Hose, brake	1
24	894573	Knuckle, steering (left)	1
25	842104	Bracket, brake tube	1
26	887512	End, tie rod (RH thread)	1
27	306328	•Pin, cotter, 3/32 x 3/4	1
*	548224	•Fitting, lubrication	1
28	311537	Nut, castle 3/4-16	1
29	816586	Retainer, grease	1
30	893233	Arm assembly, lower control	1
31	841430	Drum, brake	1
32	800909	Nut, wheel retaining, M12-1.50	5
33	306328	Pin, cotter, 3/32 x 3/4	2
34	306825	Nut, castle, 7/16-20	2
35	887750	End, tie rod (LH thread)	1
36	306328	•Pin, cotter, 3/32 x 3/4	1
*	548224	•Fitting, lubrication	1
37	311537	Nut, castle 3/4-16	1
38	816586	Retainer, grease	1
39	893266	Arm assembly, upper control	1
40	311537	Nut, castle 3/4-16	1
41	385174	Bearing, cone (outer)	1
42	815403	Bearing, cone (inner)	1
43	817928	Seal, grease	1
44	893206	Hub assembly	1
45	808088	•Cup, bearing (outer)	1
46	814474	•Cup, bearing (inner)	1
47	800908	•Screw, lug M12-1.50 x 42	5
48	450452	Nut, M6-1.00 (G10.9)	1
49	452378	Screw, M6-1.00 x 20 (G10.9)	1
50	450455	Nut, M12-1.75 (G10.9)	4
51	452413	Screw, M12-1.75 x 60	4
52	894635	Strut ay, (shock & spring)	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

***** Not Illustrated. Although this lubrication fitting is the standard fitting used with this tie rod, it is **not** used in this application. Use Ref. No. 12, Part No. 831405.

If ordering Ref. No's. 26 (887512) or 35 (887750) you will also need to order Ref. No. 12 (831405).

FRONT SUSPENSION (RIGHT SIDE) TIE RODS and SKID PLATE



FRONT SUSPENSION (RIGHT SIDE) TIE RODS and SKID PLATE

Ref. No.	Part No.	Description	No. Req'd
1	302944	Nut, jam, 9/16-18	1
2	303269	Lockwasher, 7/16	3
3	311392	Screw, 7/16-14 x 2	3
4	450077	Bolt, M16-2.00 x 90	2
5	450382	Nut, locking insert M16-2.00	2
6	450393	Washer, M16	4
7	450457	Nut, M16-2.00, flange (G10.9)	2
8	452398	Screw, M10-1.5 x 20 (8.8)	1
9	452408	Screw, M10-1.75 x 20 (G10.9)	6
10	800945	Bolt, M12-1.75 x 60 (G10.9)	2
11	452692	Screw, M6-1.00 x 12	1
12	800485	Nut, 9/16-18, left-hand	1
13	800919	Bolt, M10-1.5 x 30	4
14	809137	Clip	1
15	831405	Fitting, grease 1/4-28 (90°)	4
16	843418	Clamp, tee	1
17	841167	Bushing, silentbloc	4
18	841255	Gear, power steering	1
19	841336	Arm, pitman	1
20	841404	Rod, tie	1
21	844148	Ball joint, upper	1
22	841429	Ball joint, lower	1
23	304636	Pin, cotter 1/8 x 1 1/8	1
24	817250	Cap, grease	1
25	841630	Trunnion, control arm	1
26	841737	Shim, .060"	4
27	841738	Shim, .024"	2
28	841839	Tube, brake (right)	1
29	841841	Hose, brake	1
30	841842	Tee, union, M10-1.00 flare	1
31	842033	Plate, skid	1
32	894574	Knuckle, steering (right)	1
33	842104	Bracket, brake tube	1
34	887512	End, tie rod (RH thread)	1
35	306328	•Pin, cotter, 3/32 x 3/4	1
*	548224	•Fitting, lubrication	1
36	306825	Nut, castle, 7/16-20	1
37	816586	Retainer, grease	1
38	893234	Arm assembly, lower control	1
39	893421	Frame assembly, front	1
40	841430	Drum, brake	1
41	800909	Nut, wheel retaining, M12-1.50	5
42	306328	Pin, cotter, 3/32 x 3/4	2
43	306825	Nut, castle, 7/16-20	2
44	887750	End, tie rod (LH thread)	1
45	306328	•Pin, cotter, 3/32 x 3/4	1
*	548224	•Fitting, lubrication	1
46	306825	Nut, castle, 7/16-20	1
47	816586	Retainer, grease	1
48	810437	Clamp	4
49	893266	Arm assembly, upper control	1
50	385174	Bearing, cone (outer)	1
51	815403	Bearing, cone (inner)	1
52	817928	Seal, grease	1
53	893206	Hub assembly	1
54	808088	•Cup, bearing (outer)	1
55	814474	•Cup, bearing (inner)	1
56	800908	•Screw, lug M12-1.50 x 42	5
57	311537	Nut, castle 3/4-16	1
58	450452	Nut, M6-1.00, flange (G10.9)	1
59	452378	Screw, M6-1.00 x 20	1
60	450455	Nut, M12-1.75 (G10.9)	12
61	452413	Screw, M12-1.75 x 60	4
62	452415	Screw, M12-1.75 x 80 (8.8)	8
63	894635	Strut ay. (shock & spring)	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

***** Not Illustrated. Although this lubrication fitting is the standard fitting used with this tie rod, it is **not** used in this application. Use Ref. No. 15, Part No. 831405.

If ordering Ref. No's. 34 (887512) or 44 (887750) you will also need to order Ref. No. 15 (831405).

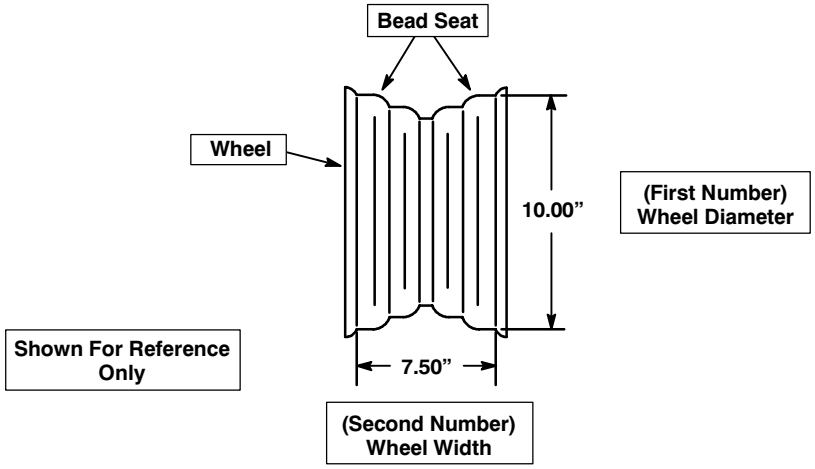
WHEEL SIZE MEASUREMENT

Wheel size is determined by measuring the wheel at the bead seat.

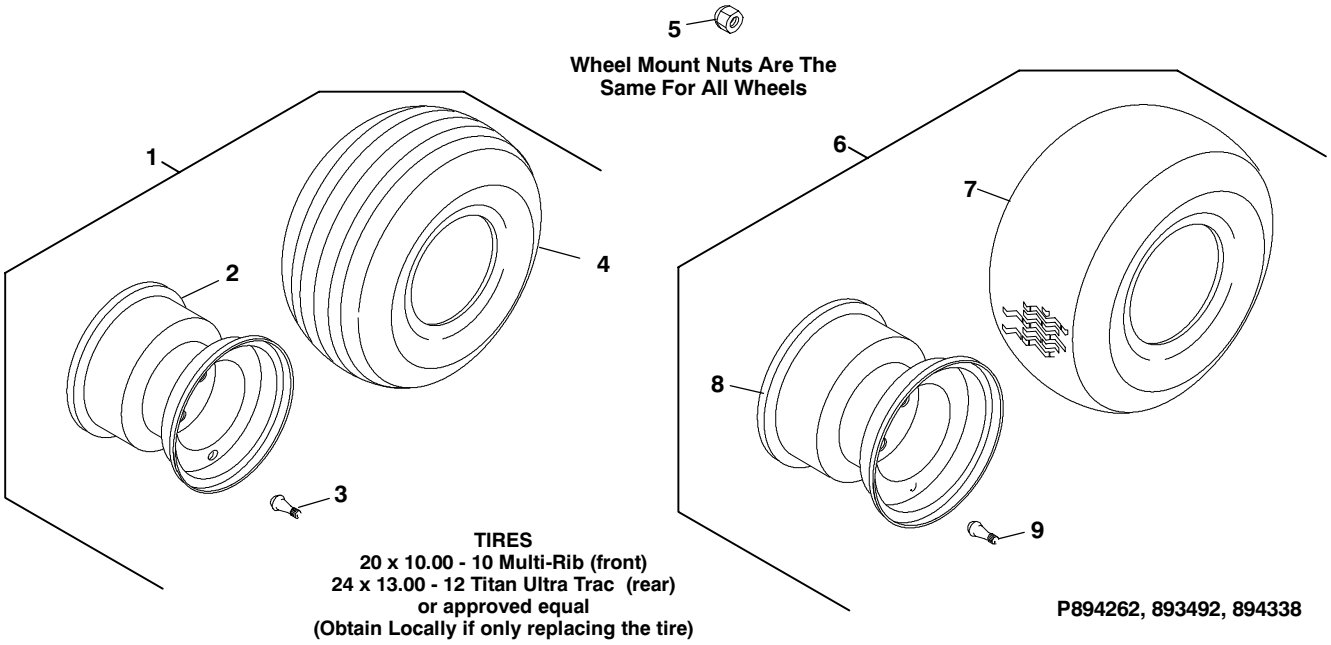
The ***first number*** is the ***wheel diameter*** measured at the bead seat.

The ***second number*** is the ***wheel width*** measured at the bead seat.

The illustration below shows an ***example*** of how to measure the wheel to determine tire size.



FRONT and REAR TIRES FOR TURF MODELS

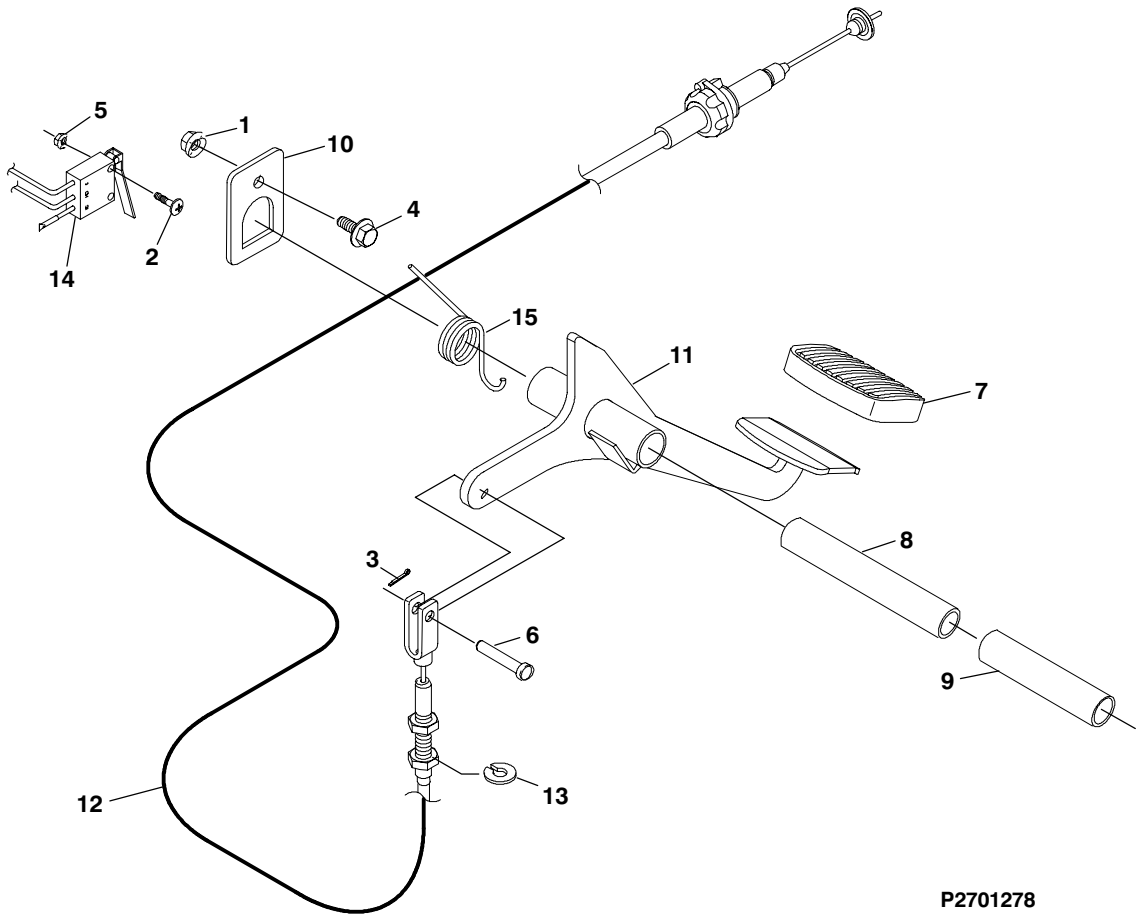


Ref. No.	Part No.	Description	No. Req'd
1	894763	Tire and wheel (front)	2
2	841433	•Wheel, 10.00 x 7.50, five bolt	1
3	886735	•Stem, valve	1
4	◊◊	•Tire, 20 x 10.00 - 10, multi-rib	1
5	800909	Nut, wheel mount	20
6	894762	Tire and wheel (rear)	2
7	◊◊	•Tire, 24 x 13.00 - 12, Titan ultra trac or approved equal (rear)	1
8	841434	•Wheel, 12.00 x 10.50	1
9	886735	•Stem, valve	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY

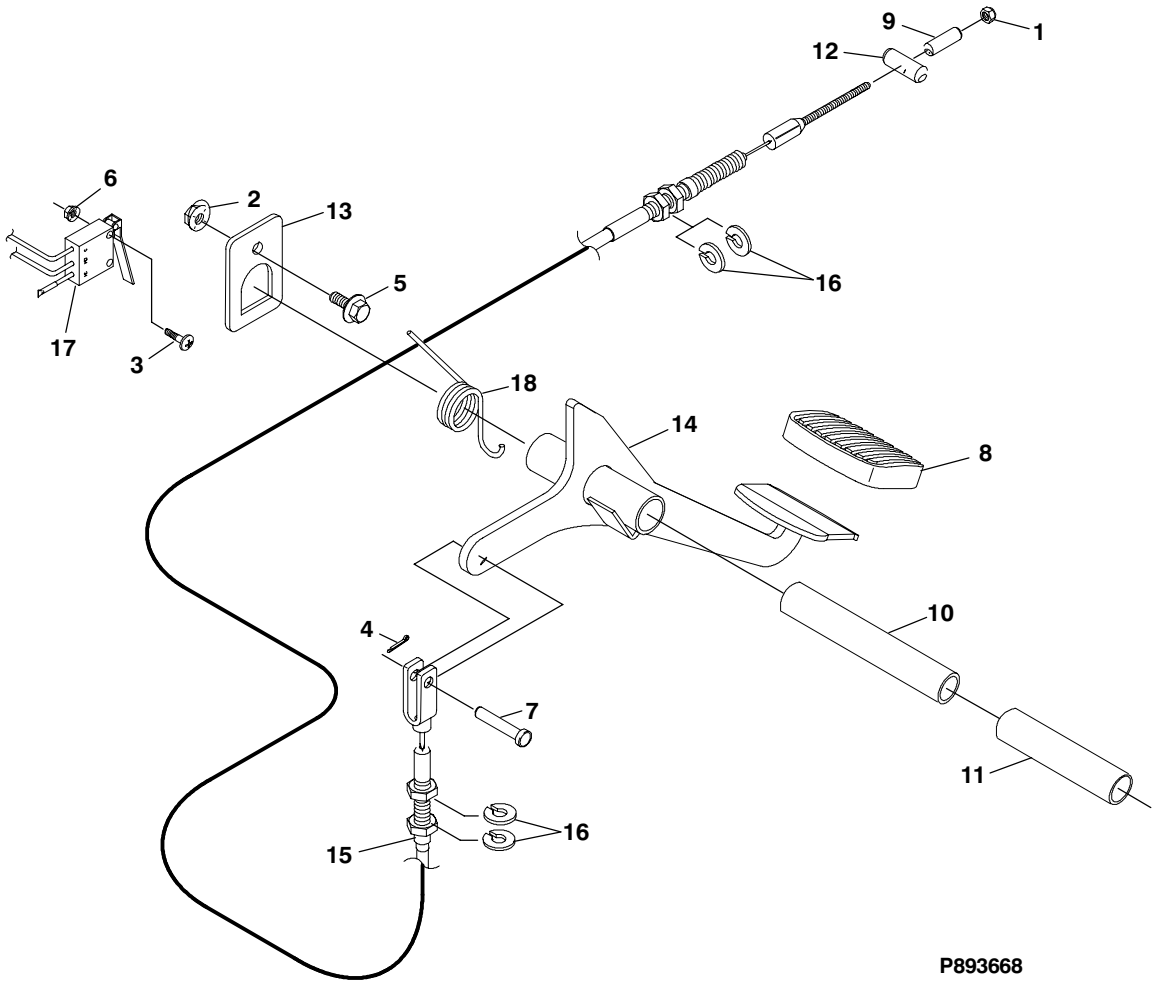
◊◊ Obtain locally

CLUTCH PEDAL and CABLE
(GASOLINE)



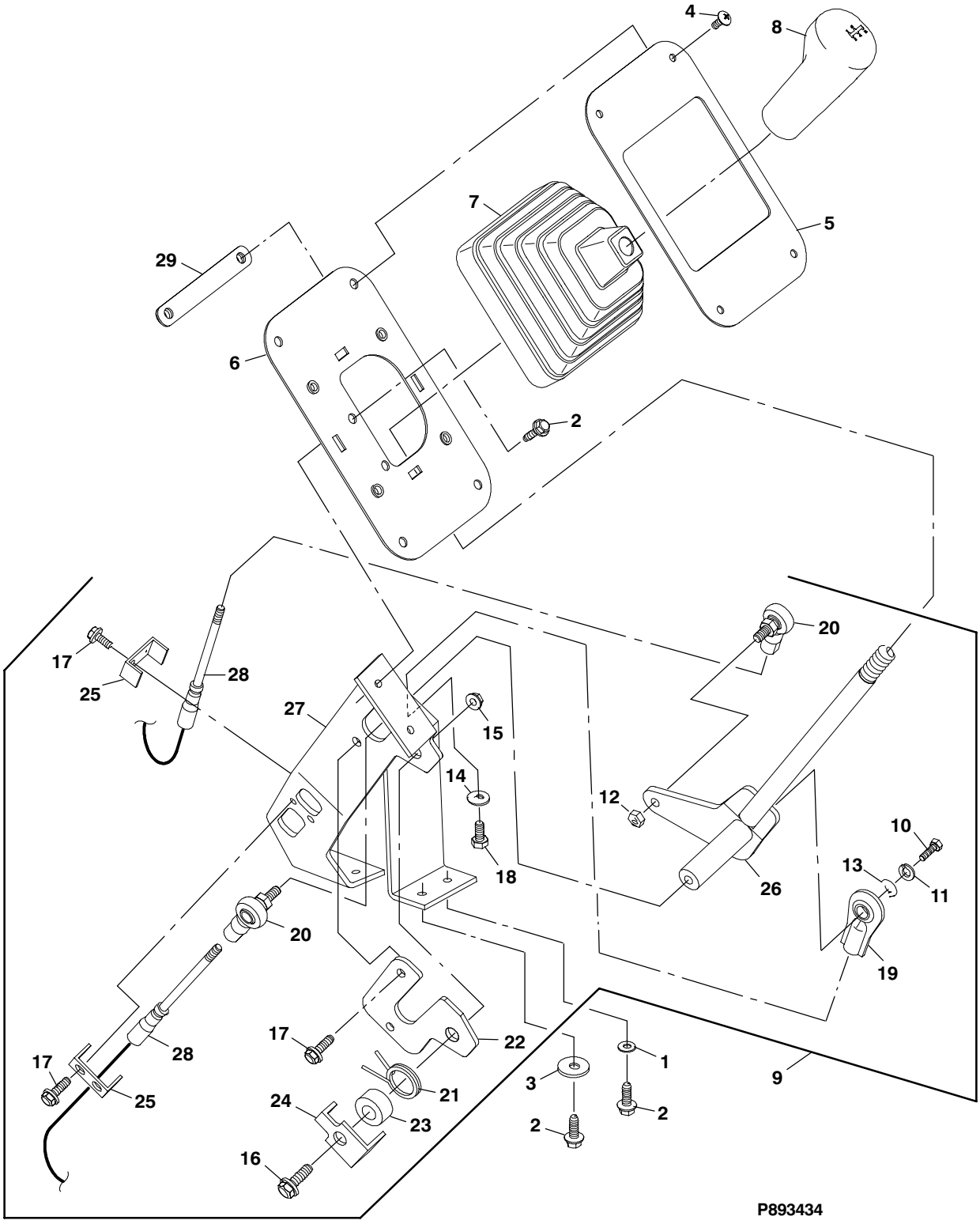
Ref. No.	Part No.	Description	No. Req'd	Notes
1	450453	Nut, M8-1.25 (G10.9)	1	
2	450510	Screw, M3-.50 x 20	2	
3	306328	Pin, cotter, 3/32 x 3/4	1	
4	452388	Screw, M8-1.25 x 20 (8.8)	1	
5	452424	Nut, flange M3-.50	2	
6	806714	Pin, clevis, 5/16 x 15/16	1	
7	810152	Cover, pedal	1	
8	840725	Pin, brake pivot	1	
9	840726	Bearing, brake pivot	1	
10	842935	Tab, locking	1	
11	892933	Lever, clutch	1	
12	895013	Cable, clutch	1	
13	844202	Washer, slotted	4	
14	890808	Switch, clutch interlock	1	
15	844611	Spring, torsion	1	

CLUTCH LINKAGE (DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	450377	Nut, M6-1.00, staytite	1
2	450453	Nut, M8-1.25 (G10.9)	1
3	450510	Screw, M3-.50 x 20	2
4	306328	Pin, cotter, 3/32 x 3/4	1
5	452388	Screw, M8-1.25 x 20 (8.8)	1
6	452424	Nut, flange M3-.50	2
7	806714	Pin, clevis, 5/16 x 15/16	1
8	810152	Cover, pedal	1
9	833273	Bushing	1
10	840725	Pin, brake pivot	1
11	840726	Bearing, brake pivot	1
12	842010	Bushing, clutch arm	1
13	842935	Tab, locking	1
14	892933	Lever, clutch	1
15	894299	Cable, clutch	1
16	844202	Washer, slotted	4
17	890808	Switch, clutch interlock	1
18	844611	Spring, torsion	1

SHIFTER and SHIFTER LINKAGE

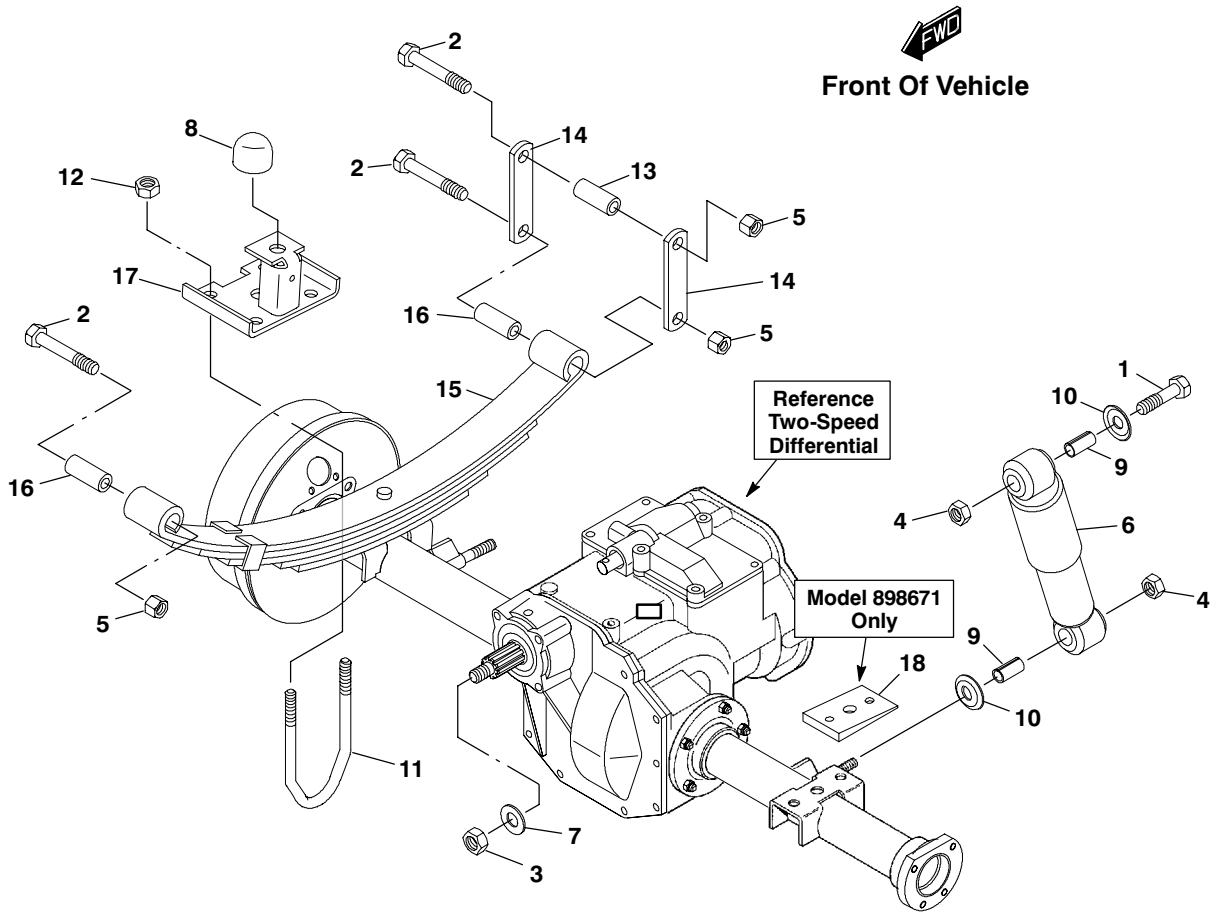


SHIFTER and SHIFTER LINKAGE

Ref. No.	Part No.	Description	No. Req'd
1	308090	Washer, 1/4	5
2	452695	Screw, M6-1.00 x 20, taptite	6
3	548175	Washer, 1/4 x 1.25	3
4	800582	Screw, 1/4-20 x 3/4	4
5	843792	Plate, shifter boot	1
6	841265	Panel, dash (right hand)	1
7	28135-85503-5PK	Boot, shifter	1
8	28113-70B01-5PK	Knob, shifter	1
9	893966	Shifter, complete	1
10	300977	•Screw, 1/4-28 x 5/8	1
11	306396	•Lockwasher, 1/4	1
12	306397	•Nut, 1/4-28	1
13	308090	•Washer, 1/4	1
14	308091	•Washer, 1/2	1
15	450454	•Nut, M10-1.50 (G10.9)	1
16	452400	•Screw, M10-1.50 x 30 (8.8)	1
17	452695	•Screw, M6-1.00 x 20, taptite	6
18	548008	•Screw, 1/2-20 x 1	1
19	842773	•Rod end, 1/2" (female)	1
20	842774	•Ball joint, 1/4"	2
21	843614	•Spring, torsion	1
22	843679	•Plate, wear	1
23	843685	•Bushing, spring	1
24	843686	•Tab, locating	1
25	843724	•Clamp, cable	2
26	893967	•Selector, complete	1
27	893968	•Mount, shifter	1
28	894179	•Cable, shifter	2
29	894743	Nut assembly, double (1/4-20)	1

• INDENTED PARTS NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

REAR SPRING, SHACKLES, U-BOLTS and REAR SHOCK ABSORBERS

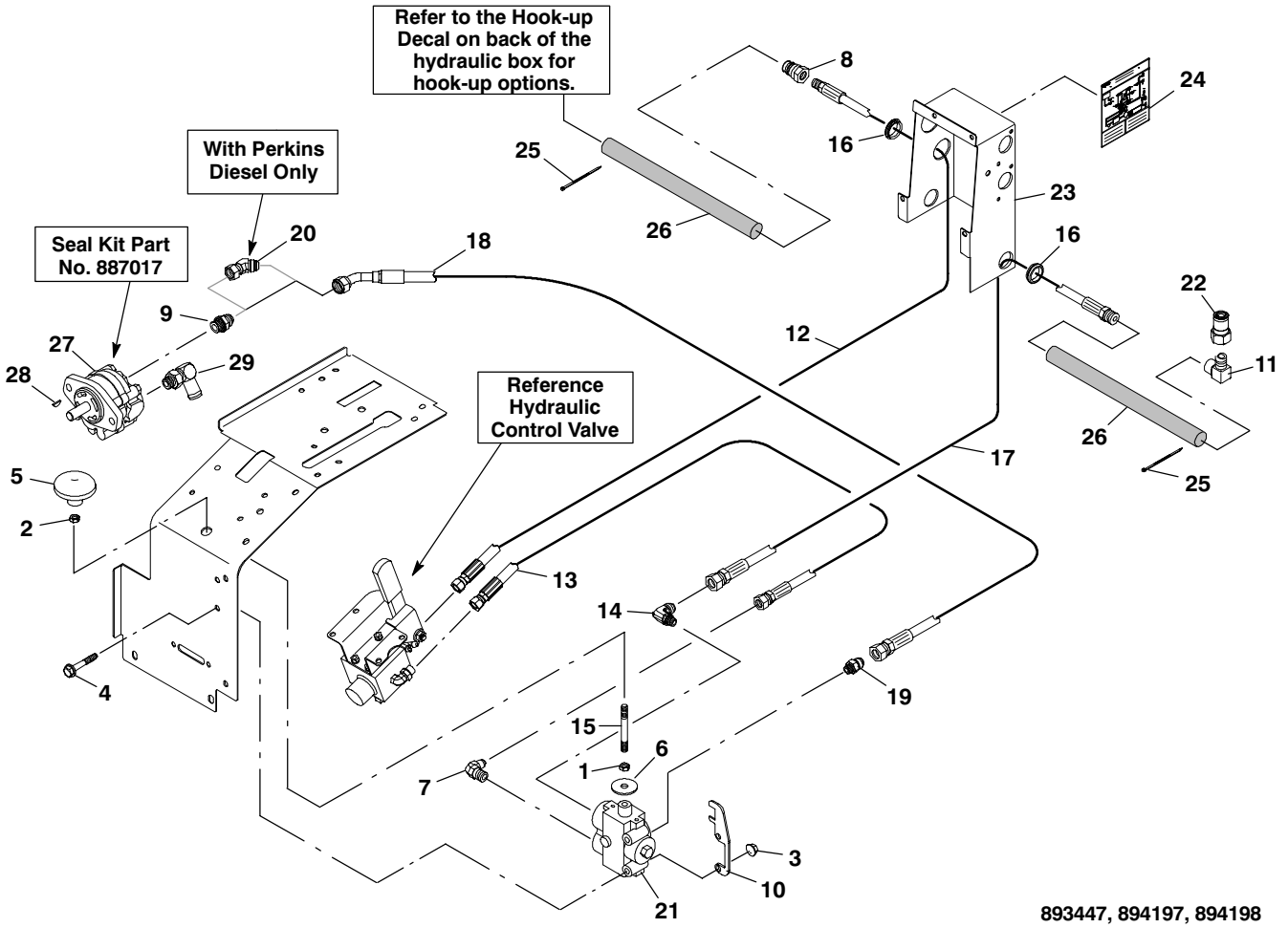


P894510, P893435, P2701117

Ref. No.	Part No.	Description	No. Req'd
1	311396	Screw, 7/16-14 x 2 1/4	2
2	311398	Screw, 1/2-13 x 3 1/2	6
3	800198	Nut, 1/2-20 crownlock	1
4	800294	Nut, 7/16-14 crownlock	4
5	800602	Nut, 1/2-13	6
6	807332	Shock absorber	2
7	809180	Washer, 7/16	1
8	813850	Bumper, rubber	2
9	823621	Bushing	4
10	825500	Washer, 3/8	4
11	887187	U-bolt, 2"	4
12	548061	•Nut, 7/16-20 unitorq	2
13	843238	Bushing, nylatron	2
14	843876	Shackle, rear spring	4
15	893862	Spring, leaf	2
16	843238	•Bushing, nylatron	2
17	893613	Upstop	2
18	838409	Spacer, leaf spring (970 only)	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEEDING ASSEMBLY.

HYDRAULIC CONTROL VALVE SYSTEM



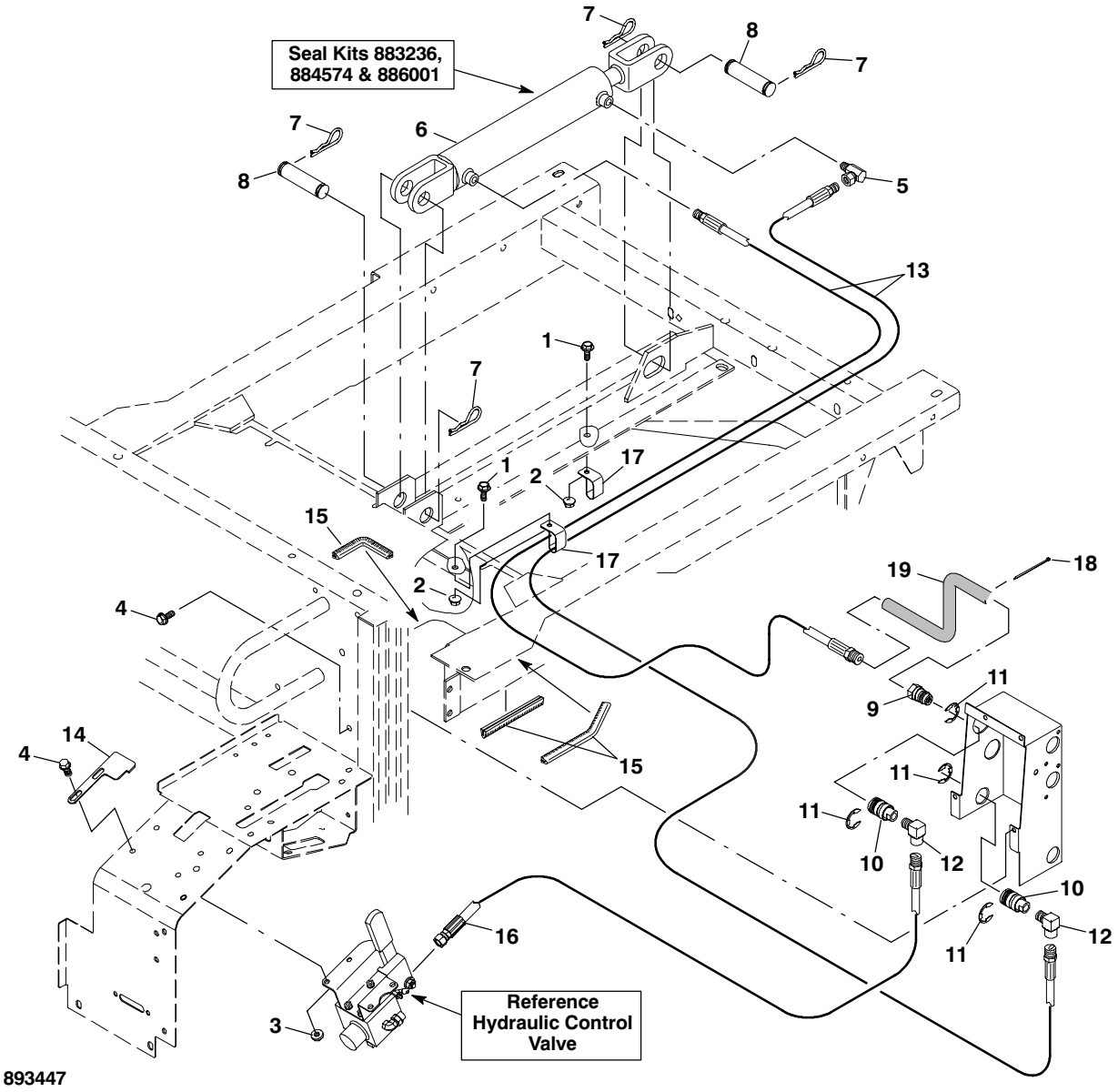
Ref. No.	Part No.	Description	No. Req'd
1	304632	Nut, jam 3/8-16	1
2	306388	Nut, jam 3/8-24	1
3	450453	Nut, M8-1.25 (G10.9)	2
4	452392	Screw, M8-1.25 x 50 (8.8)	2
5	548171	Knob	1
6	822419	Washer, flat (1.62 dia.)	1
7	826558	Elbow, 90° w/o-ring	1
8	832408	Coupler, half (male)	1
9 ◆	844566	Fitting, hydraulic	1
10	832798	Plate, stop	1
11	835101	Fitting, hydraulic 90°	1
12	841892	Hose, hydraulic 1/4 x 42"	1
13	844019	Hose, hydraulic 3/8 x 17"	2
14	844571	Adapter, 90° elbow	1
15	844582	Rod, handle extension	1
16	844584	Bushing, flip-lok	2
17	844600	Hose, hydraulic 1/2 x 39"	1
18	844628	Hose, hydraulic 3/8 x 18"	1
19	844652	Adapter, straight	1
20	844517	Fitting, 45° swivel (Perkins only)	1
21	894696	Valve, hydraulic selector	1
22	894702	Nipple, hydraulic, dry seal	1
23	2700800	Cover, hydraulics w/decal	1
24	837270	•Decal, hydraulic connections	1
(23)	2700801	Cover, hydraulics w/decal (EC)	1
*	840857	•Decal, remote hydraulics (EC)	1
25	320107	Tie cable 7 1/2" (190 mm)	2
26	840877	Sleeve, nylon	2
27◆	888042	Pump, hydraulic	1
28	306560	•Key, woodruff #5	1
*	887017	Kit, seal, hydraulic pump	1
29◆	844583	Fitting, 90° adapter	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

* Not Illustrated.

◆ Although Ref. No. 27 (hydraulic pump, Part No. 888042) is shipped with two hydraulic fittings, these fittings ***are not*** used in this application. When ordering Ref. No. 27 you will also need to order hydraulic fittings Ref. No's 9 & 29. These fittings are the correct fittings to use in this application.

HYDRAULIC LIFT SYSTEM

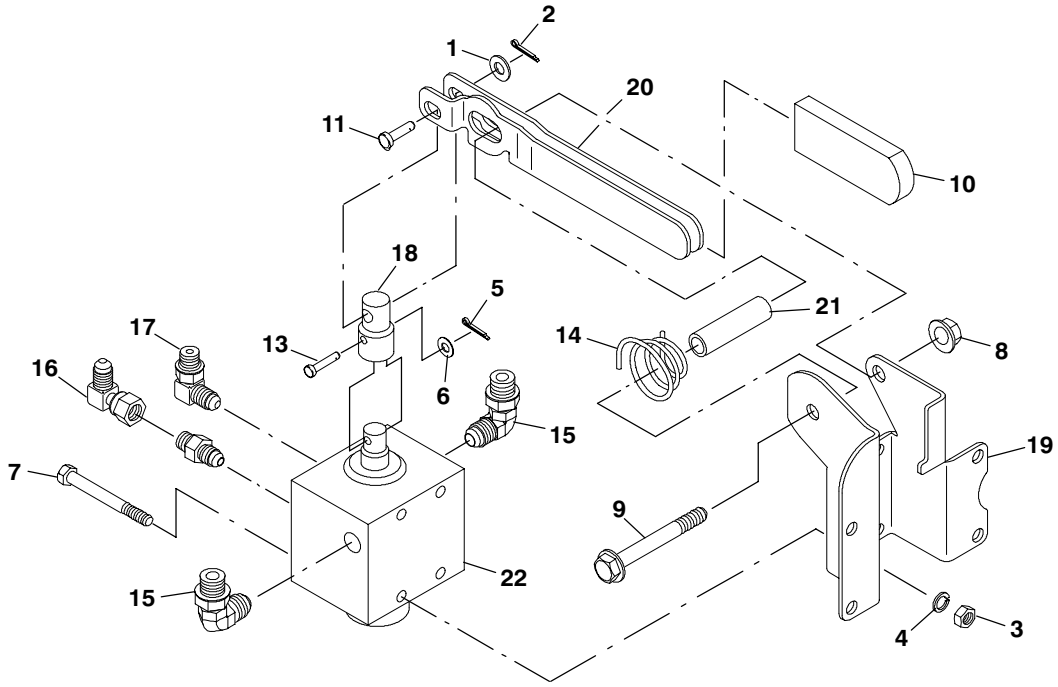


Ref. No.	Part No.	Description	No. Req'd
1	452378	Screw, M6-1.00 x 20	2
2	450452	Nut, M6-1.00 (G10.9)	2
3	450453	Nut, M8-1.25 (G10.9)	4
4	800930	Screw, M8-1.25 x 16 (8.8)	8
5	823119	Adapter, 90°	1
6	882993	Cylinder, lift	1
7	809265	•Pin, hair	4
8	830810	•Pin, clevis	2
*	883236	•Kit, seal	1
*	884574	•Kit, seal	1
*	886001	•Kit, seal	1

Ref. No.	Part No.	Description	No. Req'd
9	832408	Coupler half, male	1
10	832409	Coupler half, female	2
11	832414	Ring, retaining	4
12	835101	Fitting, hydraulic 90°	2
13	832900	Hose, hydraulic, 1/4 x 38"	2
14	844051	Plate, float latch	1
15	821893	Trim, push-on	As Req'd.
16	844598	Hose, hydraulic, 1/4 x 30"	1
17	817320	Clamp, hose	2
18	320107	Tie, cable 7 1/2" (190 mm)	2
19	840877	Sleeve, nylon	1

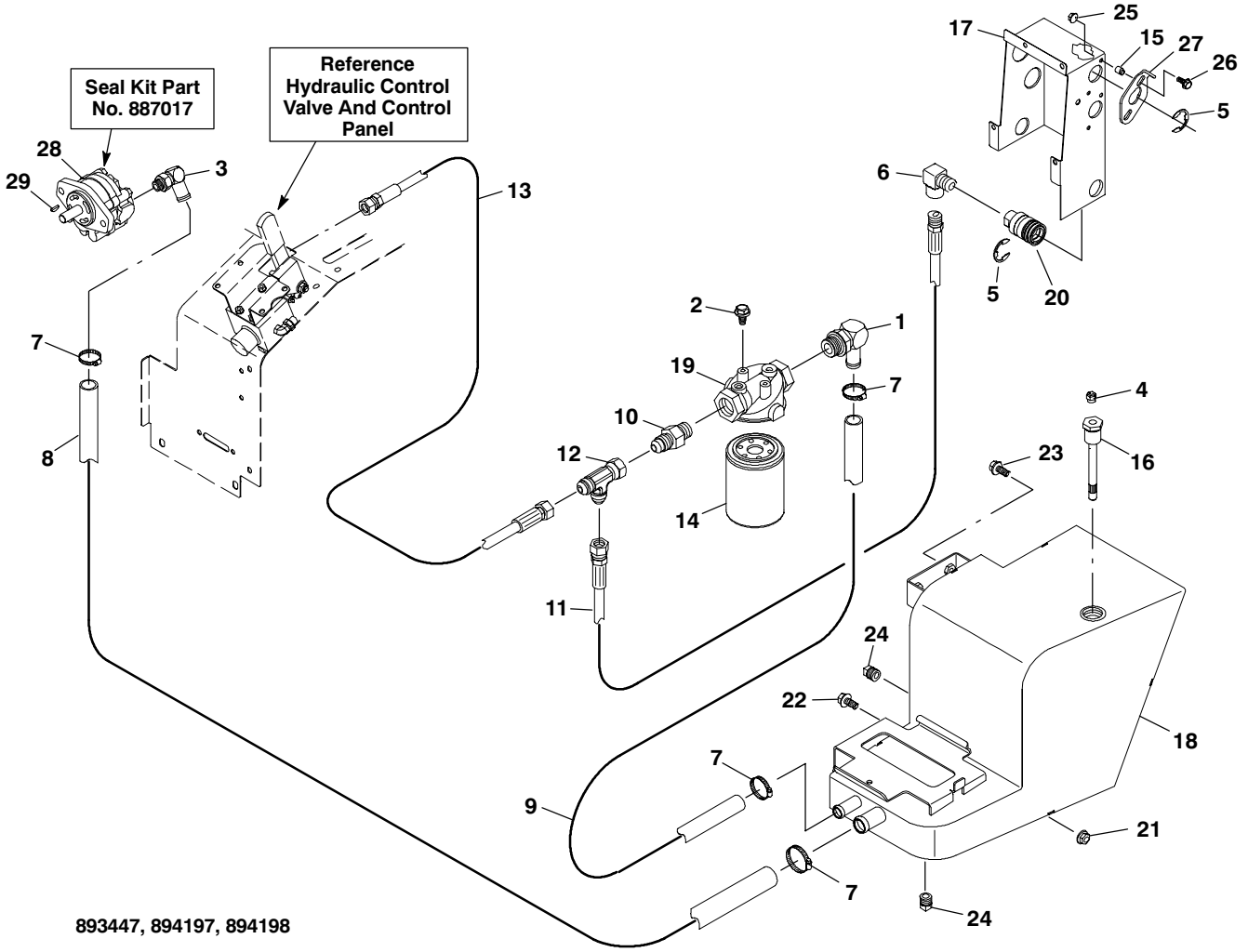
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.
* Not Illustrated.

HYDRAULIC CONTROL VALVE



Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	1
2	306328	Pin, cotter 3/32 x 3/4	1
3	306375	Nut, 1/4-20	4
4	306396	Lockwasher, 1/4	4
5	306463	Pin, cotter 1/16 x 1/2	1
6	308089	Washer, #10	1
7	316907	Screw, 1/4-20 x 2 3/4	4
8	450454	Nut, M10-1.50 (G10.9)	1
9	452404	Screw, M10-1.50 x 70 (8.8)	1
10	521144	Cover, handle	1
11	814079	Pin, clevis 5/16 x 1 1/8	1
12	823118	Fitting, hydraulic straight	1
13	823225	Pin, clevis 3/16 x 1	1
14	825538	Spring, compression	1
15	844454	Elbow, 90° w/o-ring	2
16	828056	Fitting	1
17	828057	Fitting	1
18	839213	Connector, valve	1
19	843355	Mount, control valve	1
20	843758	Handle, control valve	1
21	843759	Bushing, control valve	1
22	886270	Valve, hydraulic	1

HYDRAULIC FILTER and RESERVOIR

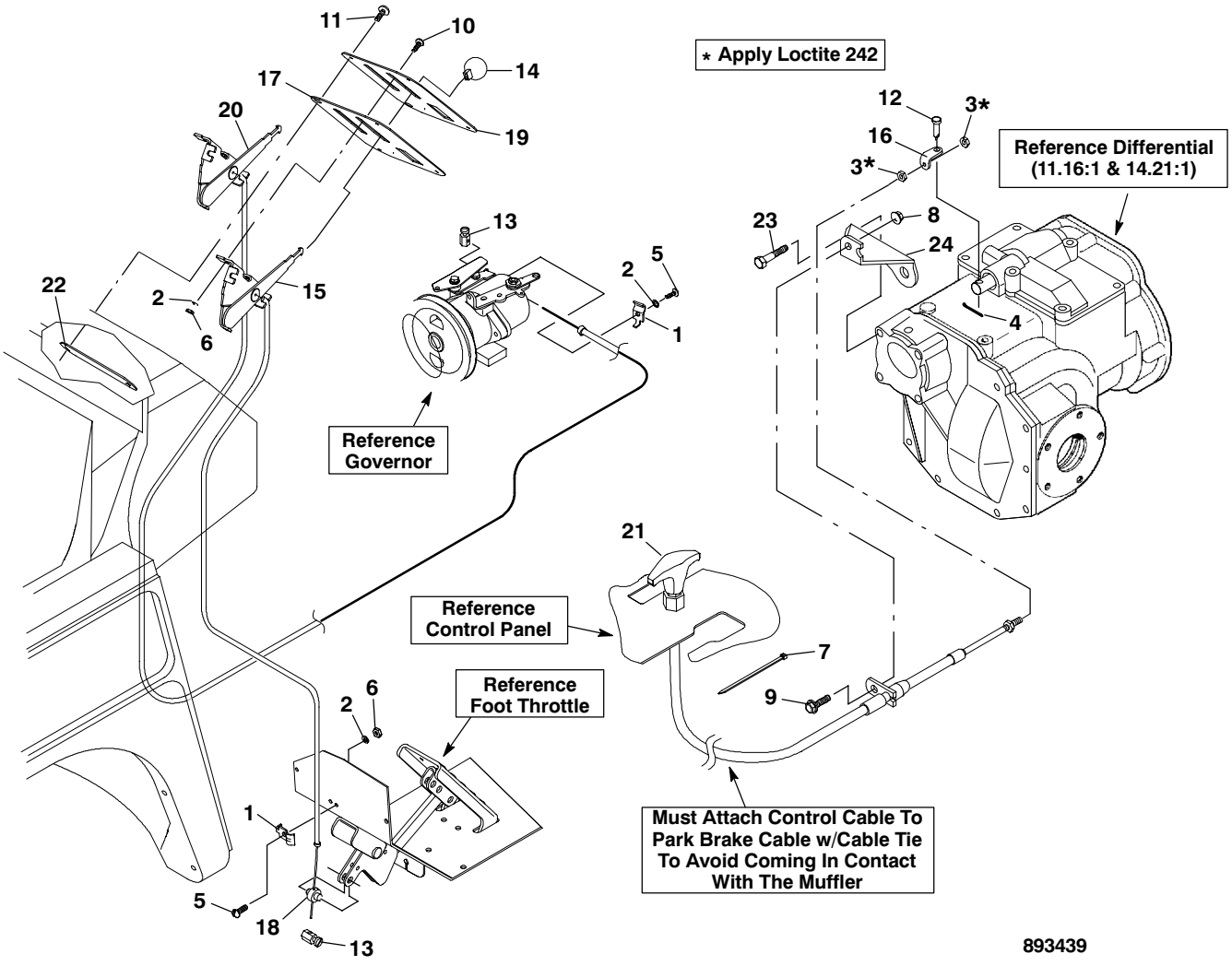


Ref. No.	Part No.	Description	No. Req'd
1	523768	Adapter, 90° elbow	1
2	548827	Screw, 1/4-20 x 1/2	2
3	844583	Fitting, 90° adapter	1
4	827486	Valve, pressure relief	1
5	832414	Ring, retaining	2
6	835101	Fitting, hydraulic 90°	1
7	836206	Clamp, hose	4
8	844564	Hose, hydraulic, 1" x 26"	1
9	844565	Hose, hydraulic, 3/4" x 16"	1
10	844590	Adapter, straight	1
11	844600	Hose, hydraulic, 1/2" x 39"	1
12	844627	Fitting, swivel tee	1
13	844630	Hose, hydraulic, 3/8 x 21"	1
14	885249	Element, filter	1
15	844973	Bushing	1
16	893539	Dipstick, hydraulic tank	1
17	2700800	Cover, hydraulics w/decal	1
*	837270	•Decal, hydraulic connections	1
(17)	2700801	Cover, hydraulics w/decal	1
*	840857	•Decal, hydraulic connections	1
18	894675	Tank, hydraulic	1
19	894691	Head, filter	1
20	894701	Coupler, hydraulic dryseal	1
21	450453	Nut, M8-1.25 (G10.9)	2
22	452388	Screw, M8-1.25 x 20 (G8.8)	2
23	452399	Screw, M10-1.50 x 25 (8.8)	2
24	800113	Plug	2
25	450452	Nut, M6-1.00 (10.9)	2
26	452381	Screw, M6-1.00 x 40 (8.8)	2
27	844937	Plate, coupler retainer	1
28	888042	Pump, hydraulic	1
29	306560	•Key, woodruff #5	1
*	887017	Kit, seal, hydraulic pump	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

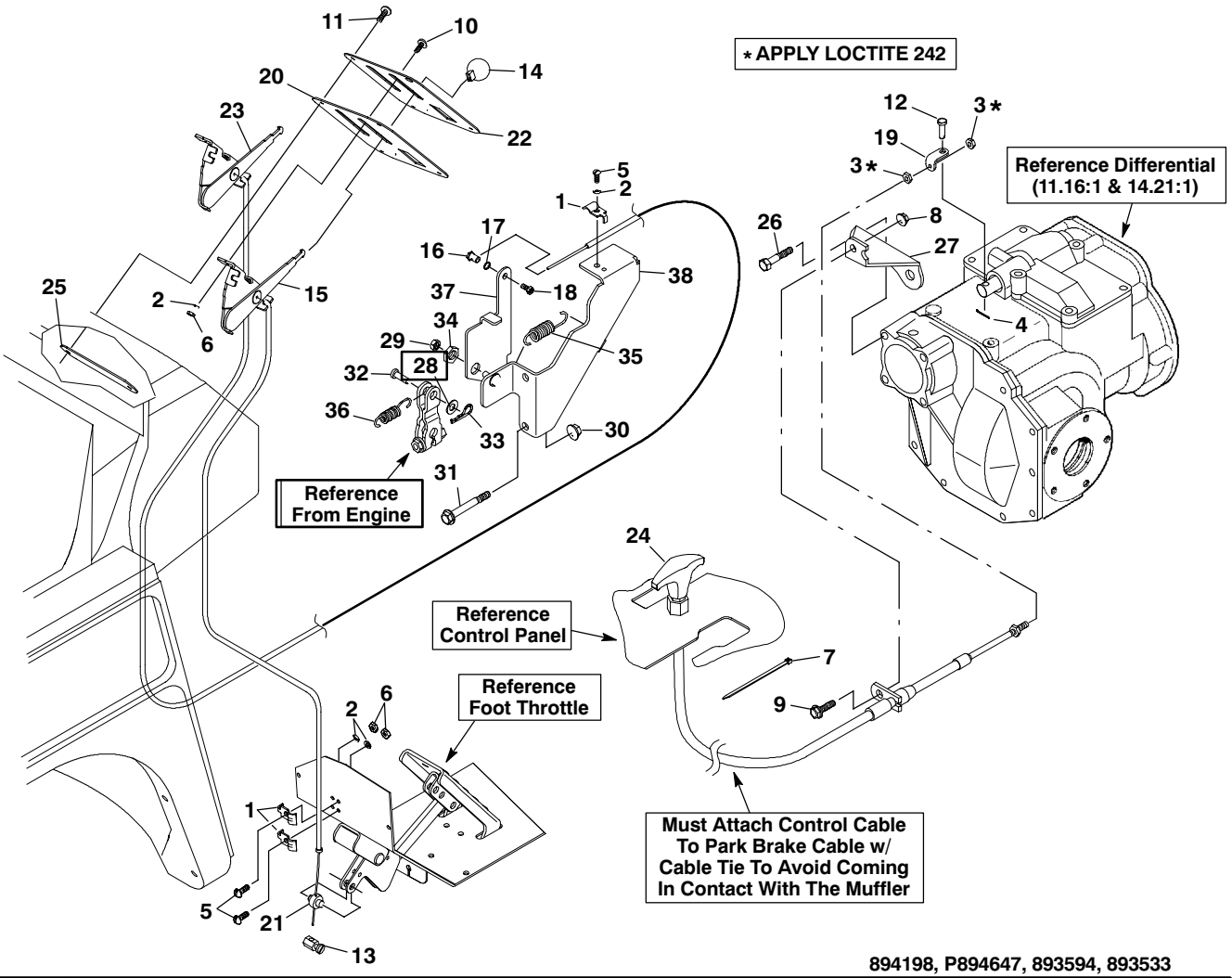
* Not Illustrated.

HAND CONTROLS, GOVERNOR and THROTTLE (GASOLINE)



Ref. No.	Part No.	Description	No. Req'd
1	111898	Clamp, cable	2
2	120052	Lockwasher, #10	6
3	132520	Nut, #10-32	2
4	306328	Pin, cotter 29/32 x 3/4	1
5	306514	Screw, #10-32 x 1/2	2
6	306531	Nut, #10-24	5
7	320107	Tie, cable 7 1/2 " (190.5 mm)	1
8	450452	Nut, M6-1.00 (G10.9)	1
9	452378	Screw, M6-1.00 x 20	1
10	800271	Screw, #10-24 x 1/2 (G5)	4
11	800582	Screw, 1/4-20 x 3/4	4
12	806703	Pin, clevis 5/16 x 31/32	1
13	817104	Stop, wire	2
14	827821	Knob	2
15	828049	Cable, control (hand throttle)	1
16	837043	Bracket (cable to differential)	1
17	841264	Panel, left hand (turf)	1
18	843607	Bushing, throttle cable	1
19	844116	Decal, left hand dash (turf)	1
20	844130	Cable, governor control	1
21	893067	Cable, control (hi-lo shift)	1
22	894743	Nut, double	2
23	307776	Screw, 3/8-16 x 2 3/4	2
24	836841	Bracket, hi-lo shift cable mount	1

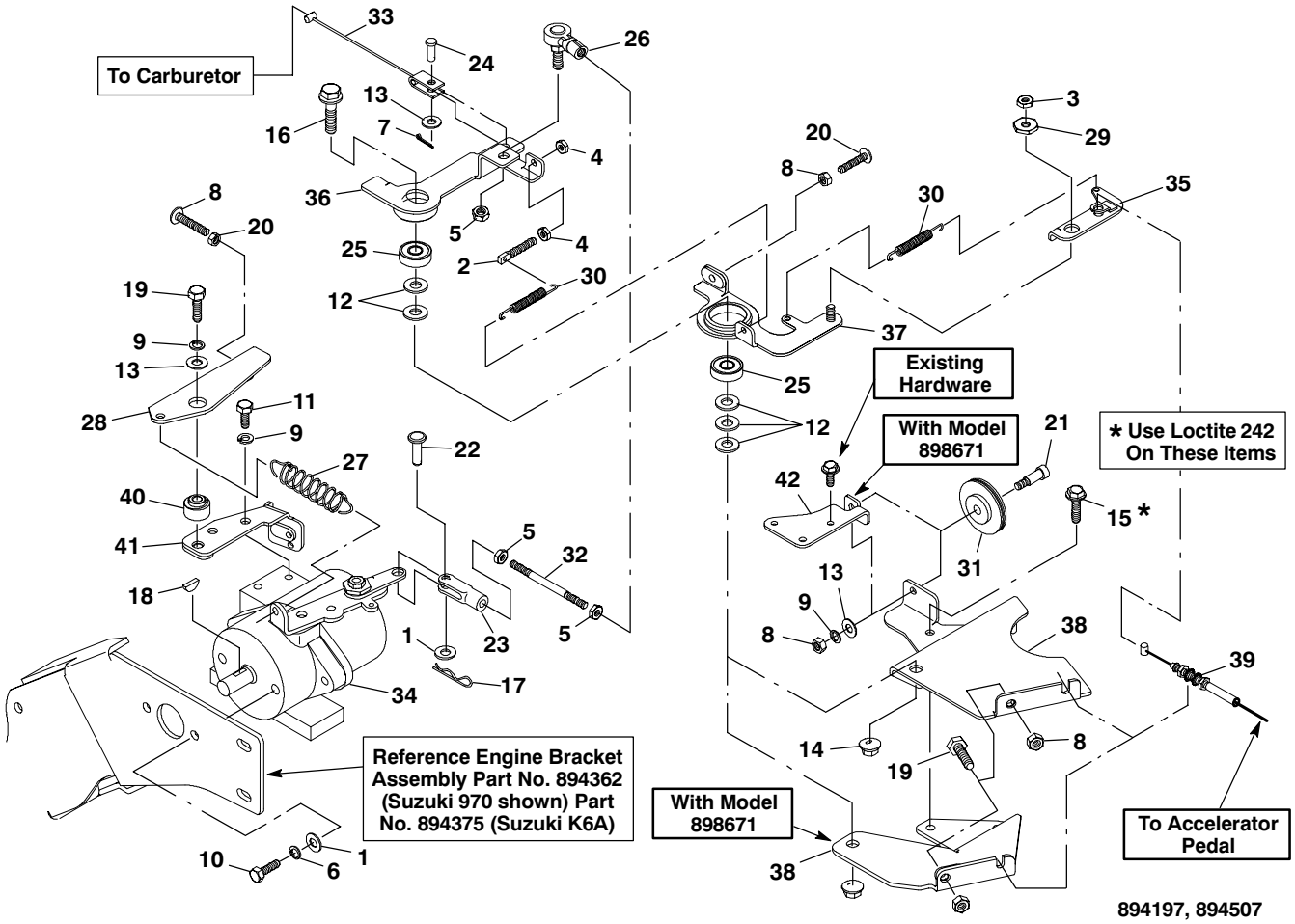
HAND CONTROLS, GOVERNOR and THROTTLE (DIESEL)



894198, P894647, 893594, 893533

Ref. No.	Part No.	Description	No. Req'd
1	111898	Clamp, cable	3
2	120052	Lockwasher, #10	6
3	132520	Nut, #10-32	3
4	306328	Pin, cotter 29/32 x 3/4	1
5	306514	Screw, #10-32 x 1/2	3
6	306531	Nut, #10-24	6
7	320107	Tie, cable 7 1/2 " (190.5 mm)	1
8	450452	Nut, M6-1.00 (G10.9)	1
9	452378	Screw, M6-1.00 x 20	1
10	800271	Screw, #10-24 x 1/2 (G5)	4
11	800582	Screw, 1/4-20 x 3/4	4
12	806703	Pin, clevis 5/16 x 31/32	1
13	817104	Stop, wire	2
14	827821	Knob	2
15	828049	Cable, control (hand throttle)	1
16	831888	Swivel	1
17	831889	Washer, swivel	1
18	831890	Screw, swivel throttle cable	1
19	837043	Bracket	1
20	841264	Panel, left hand, turf	1
21	843607	Bushing, throttle cable	1
22	844116	Decal, left hand dash, turf	1
23	844130	Cable, governor control	1
24	893067	Cable, control (hi-lo shift)	1
25	894743	Nut, double	2
26	307776	Screw, 3/8-16 x 2 3/4	2
27	836841	Bracket, hi-lo shift cable mount	1
28	103867	Washer, 5/16	1
29	130728	Nut, 1/4-20 jam	1
30	450453	Nut, M8-1.25 (G10.9)	2
31	452394	Screw, M8-1.25 x 70 (G8.8)	2
32	812444	Pin, clevis 5/16 x 3/4	1
33	821164	Pin, hair	1
34	835271	Nut	1
35	840473	Spring, extension	1
36	842785	Spring, idle return	1
37	844274	Lever, governor	1
38	894591	Bracket, throttle	1

GOVERNOR and THROTTLE LINKAGE

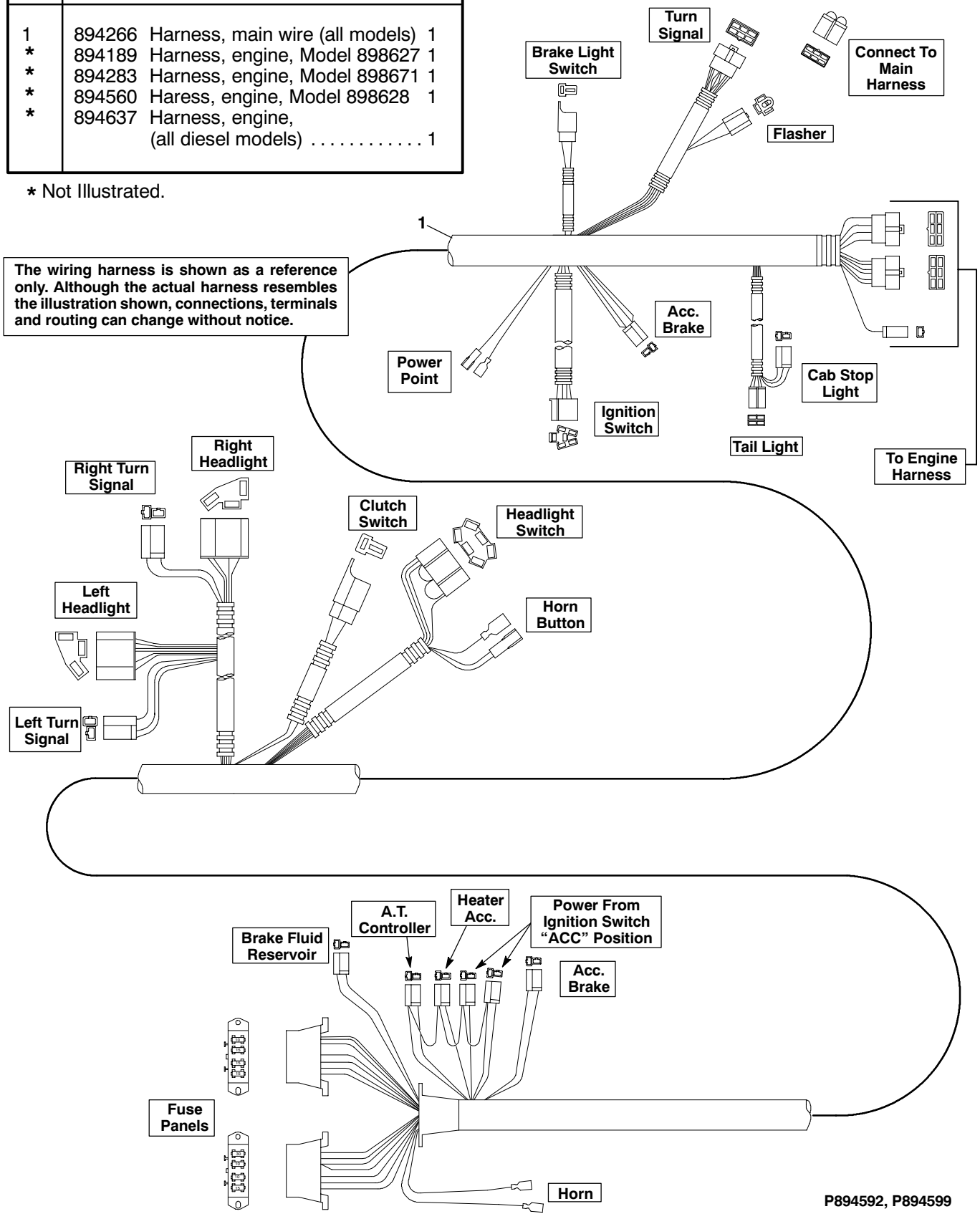


Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	3
2	111893	Screw, special #10-32	1
3	130728	Nut, 1/4-20	1
4	132520	Nut, jam #10-32	2
5	306320	Nut, 5/16-24	3
6	306325	Lockwasher, 5/16	2
7	306372	Pin, cotter 3/32 x 1/2"	1
8	306375	Nut, 1/4-20	4
9	306396	Lockwasher, 1/4	4
10	306450	Screw, 5/16-18 x 3/4	2
11	306487	Screw, 1/4-20 x 5/8	2
12	306981	Washer, 3/8	5
13	308090	Washer, 1/4	3
14	450454	Nut, M10-1.50 (G10)	1
15	452378	Screw, M6-1.00 x 20	2
16	452401	Screw, M10-1.50 x 40 (8.8)	1
17	548190	Pin, hair 11/16 x 1 7/8	1
18	553046	Key, woodruff 1/4 x 1/2	1
19	302288	Screw, 1/4-20 x 1	2
20	800024	Screw, 1/4-20 x 1 1/2	2
21	800927	Screw, shoulder, 1/4-20 x 5/8	1
22	806773	Pin, clevis 5/16 x 1 1/8	1
23	810722	Yoke	1
24	813379	Pin, clevis 1/4 x 3/8	1
25	830140	Bearing, ball	2
26	831586	Ball joint	1
27	833101	Spring, extension	1
28	894434	Arm assembly, governor	1
29	835271	Nut	1
30	840473	Spring, extension	2
31	843013	Pulley, governor	1
32	843536	Rod, governor arm	1
33	843567	Cable, carburetor	1
34	4115000	Governor, complete	1
35	894453	Arm, throttle	1
36	894454	Arm, governor	1
37	894463	Lever	1
38	894464	Base, throttle (Suzuki K6A)	1
(38)	894482	Base, throttle (Suzuki 970)	1
39	894540	Cable, throttle	1
40	843866	Bushing, governor	1
41	894435	Bracket assembly, governor	1
42	842753	Bracket, carburetor (Suzuki 970)	1

ENGINE and MAIN WIRE HARNESS

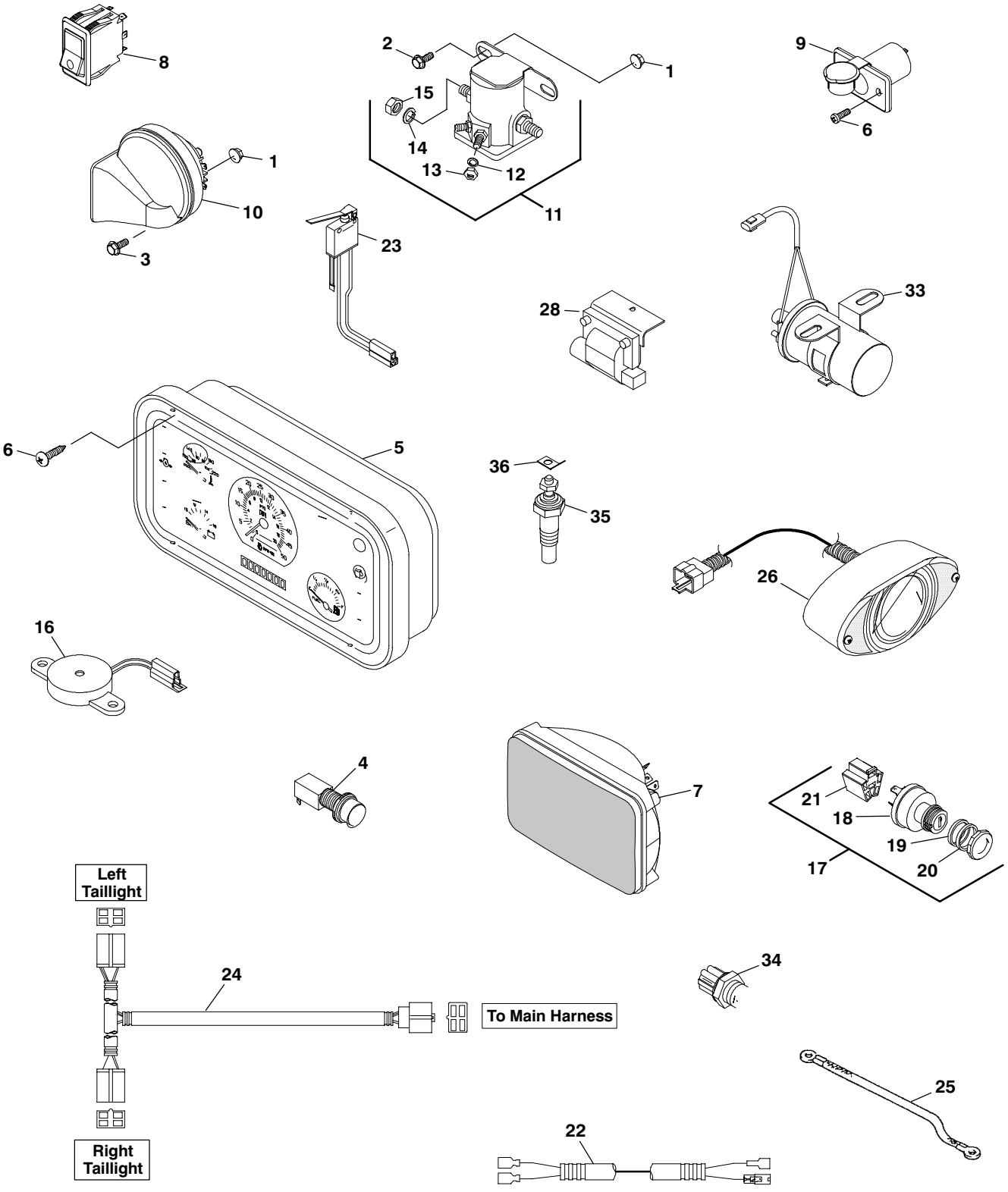
Ref No.	Part No.	Description	No. Req'd.
1	894266	Harness, main wire (all models)	1
*	894189	Harness, engine, Model 898627	1
*	894283	Harness, engine, Model 898671	1
*	894560	Haress, engine, Model 898628	1
*	894637	Harness, engine, (all diesel models)	1

* Not Illustrated.



P894592, P894599

ELECTRICAL COMPONENTS and WIRING HARNESSES

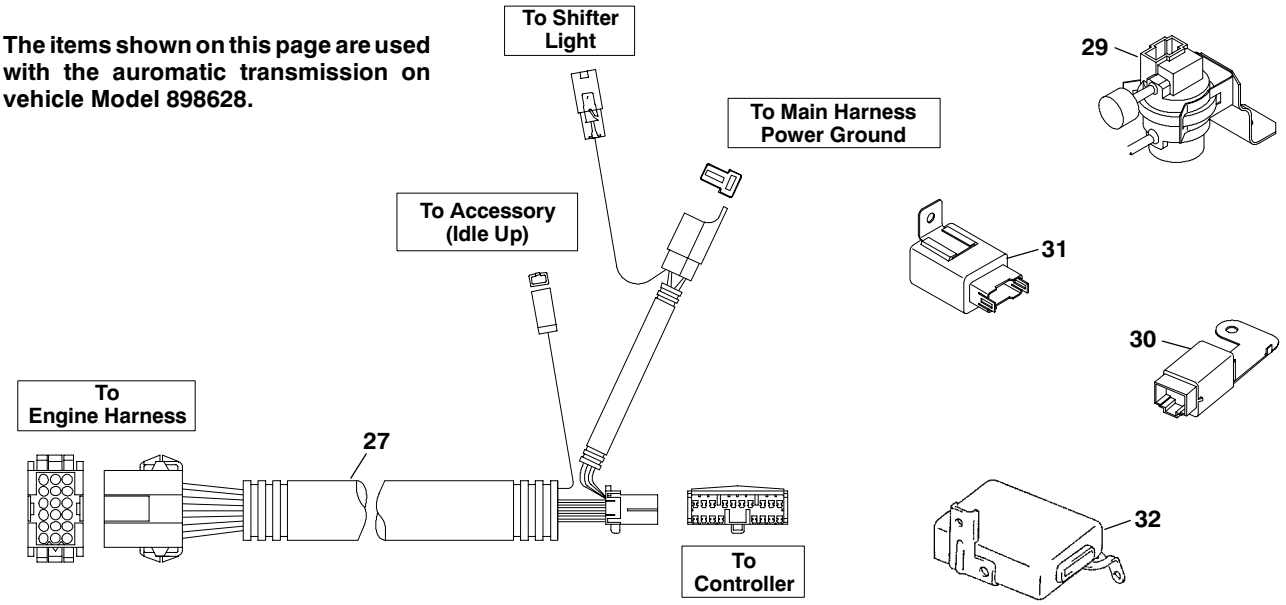


The wiring harnesses are shown as a reference only. Although the actual harness resembles the illustration shown, connections, terminals and routing can change without notice.

893442, 893448, 893972

ELECTRICAL COMPONENTS and WIRING HARNESSES

The items shown on this page are used with the auromatic transmission on vehicle Model 898628.



The convoluted tubing used on the wiring harnesses can be ordered in bulk length only. Cut off the required amount for your particular application. Order the tubing as follows:

Part No. 826190 .350 i.d. sold in 50' (15.2 m) lengths

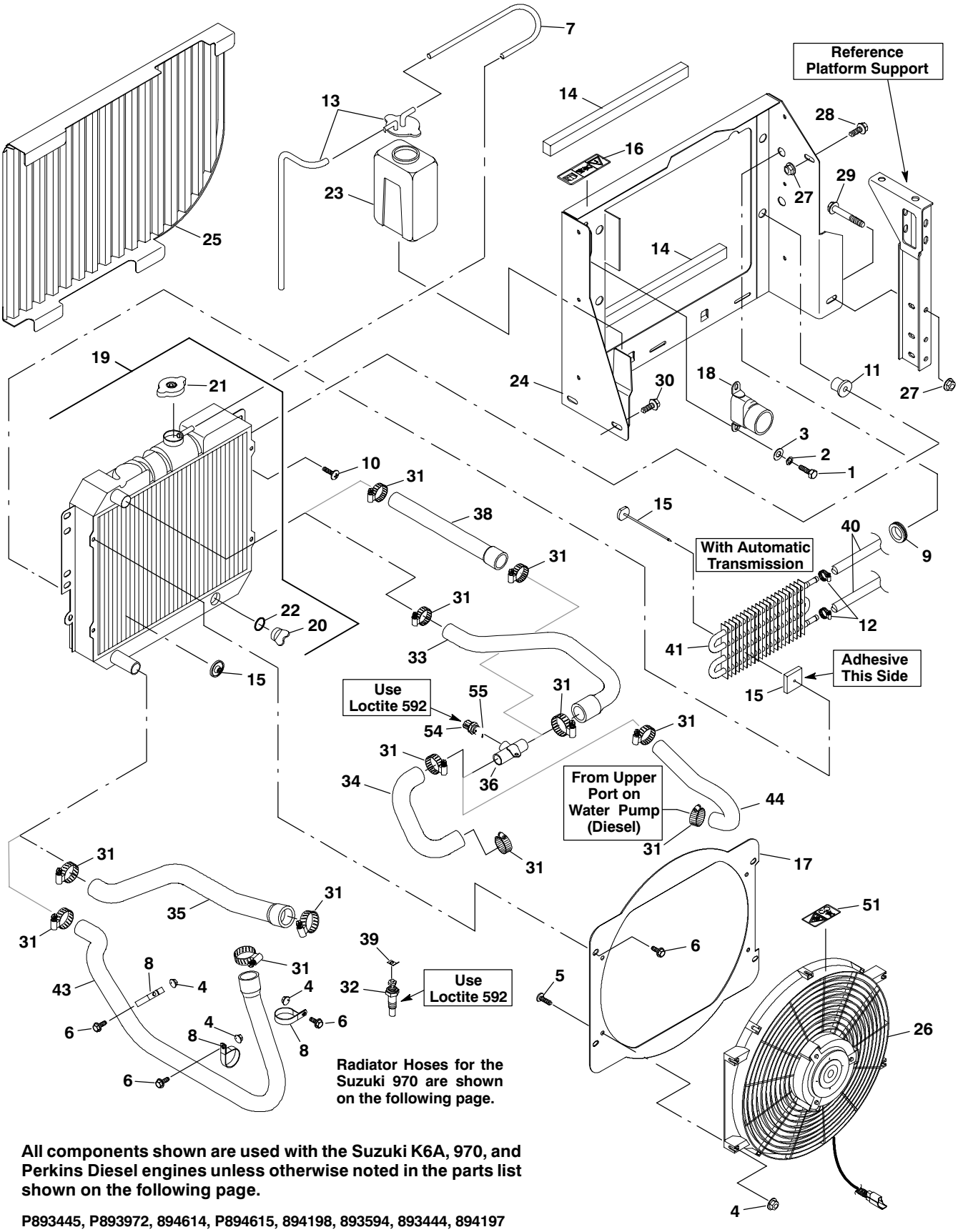
Part No. 826191 .500 i.d. sold in 25' (7.6 m) lengths

Ref. No.	Part No.	Description	No. Req'd.
1	450452	Nut, M6-1.00 (G10)	3
2	452378	Screw, M6-1.00 x 20	2
3	800934	Screw, M6-1.00 x 16 (G10)	1
4	830366	Switch, push (horn button)	1
5	841636	Panel, instrument w/tach	1
6	800943	Screw, #10-14 x 5/8	4
7	837303	Headlight, rectangular	2
8	843581	Switch, headlight	1
9	843942	Socket, 12V acc. plug	1
10	886090	Horn	1
11	889673	Solenoid	1
12	120052	•Lockwasher, #10	2
13	132520	•Nut, #10-32	2
14	306325	•Lockwasher, 5/16	2
15	306932	•Nut, 5/16-18	2
16	890000	Buzzer assembly	1
17	890154	Switch, ignition, complete	1
18	837295	•Switch, ignition	1
*	837296	•Connector	1
19	837299	•Spacer	1
20	837300	•Spacer	1
21	890158	•Connector and wire	1
22	894201	Harness, wire, fuel tank	1
23	894308	Switch (normally open)	1
24	894313	Harness, wire, taillight	1
25	39312-50F01	Wire, noise suppressor (Suzuki Models Only)	1
26	893602	Taillight	1
27	894531	Harness, ATM controller (Model 898628)	1
28	33410-50F20	Coil, ignition (Suzuki K6A)	1
29	18570-84000	Switch set, vacuum	1
30	38850-51F10	Controller, idle up	1
31	38850-50F41	Controller, fuel	1
32	38880-51F13	Controller, auto. trans.	1
33	33410-85010	Coil, ignition (Suzuki 970)	1
34	17680-50F70	Switch, fan	1
35	843857	Sender, water temperature	1
36	829787	Terminal, 45° 1/4" male	1

• INDENTED PARTS NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

* Not Illustrated

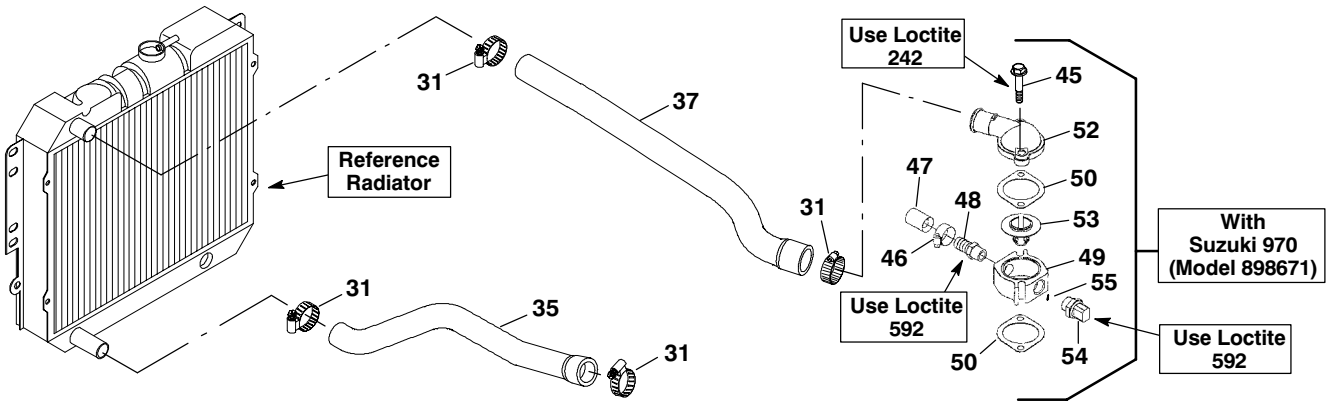
RADIATOR and COOLING SYSTEM



All components shown are used with the Suzuki K6A, 970, and Perkins Diesel engines unless otherwise noted in the parts list shown on the following page.

P893445, P893972, 894614, P894615, 894198, 893594, 893444, 894197

RADIATOR and COOLING SYSTEM



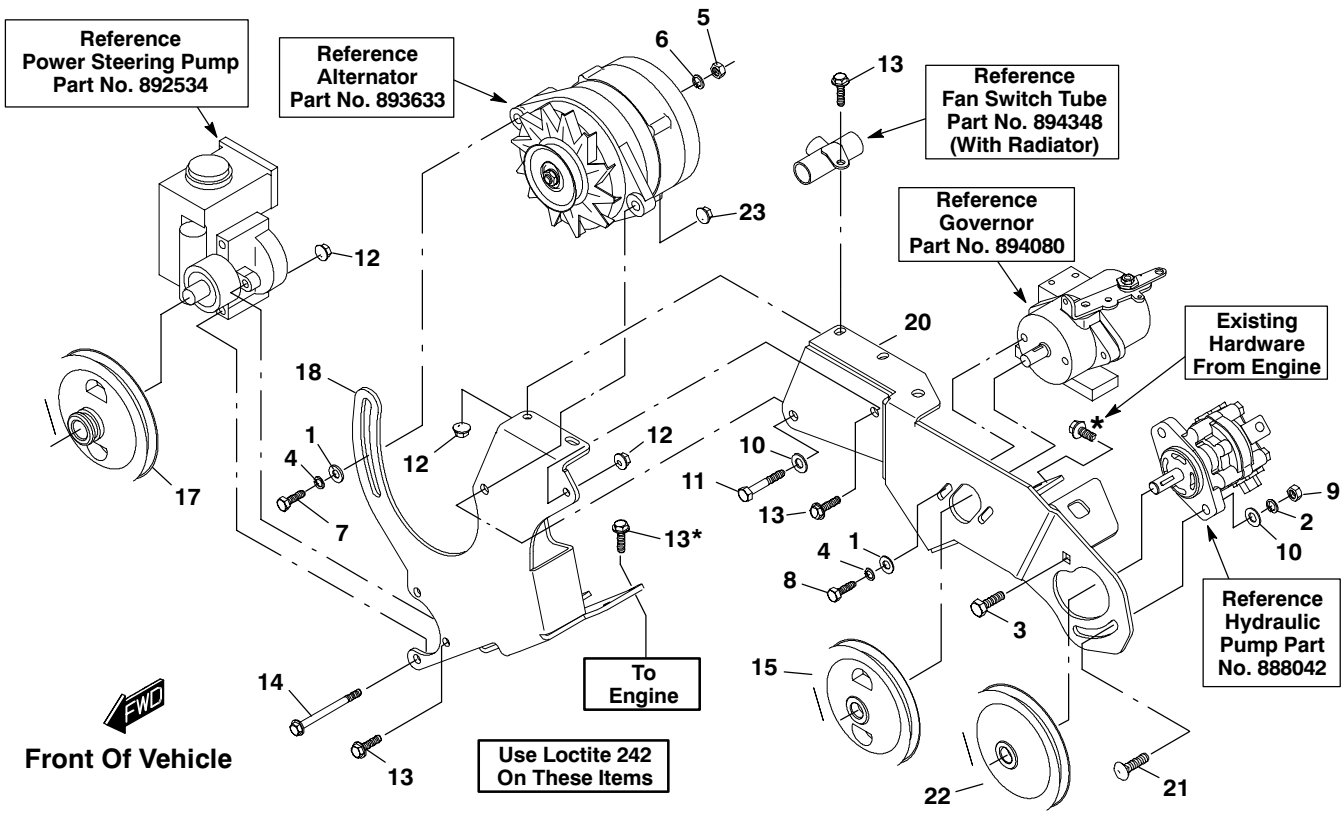
Ref. No.	Part No.	Description	No. Req'd
1	300646	Screw, 1/4-20 x 3/4	2
2	306396	Lockwasher, 1/4	2
3	308090	Washer, 1/4	2
4	450452	Nut, M6-1.00	7
5	450541	Screw, M6-1.00 x 16	4
6	452378	Screw, M6-1.00 x 20	7
7	835805	Hose, radiator overflow	As Req'd.
8	825884	Clamp, tube	3
9	809231	Grommet (Model 898671)	2
10	800177	Screw, 5/16-18 x 3/4	4
11	831846	Nut, isolation	4
12 ◇	825624	Clamp, hose (Model 898671)	4
13	889051	Cap, coolant reservoir	1
14	833512	Foam	2
15	800789	Kit, oil cooler mounting, automatic transmission (Model 898671)	1
16	840754	Decal, Warning Pressure	1
17	843040	Bracket, fan mounting	1
18	888549	Connector, hose (air cleaner)	1
19	894590	Radiator	1
20	833443	•Plug	1
21	889049	•Cap, radiator	1
22	833442	•O-ring	1
23	889050	Reservoir, coolant	1
24	893388	Mount, radiator	1
25	893554	Screen	1
26	2700799	Fan, radiator, cooling	1
27	450453	Nut, M8-1.25 (G10.9)	2
28	452388	Screw, M8-1.25 x 20 (8.8)	1
29	452395	Screw, M10-1.50 x 80 (8.8)	1
30	452398	Screw, M10-1.50 x 20 (8.8)	2
31	820889	Clamp, tubing	6
32	843857	Sender, water temperature	1
33	843638	Hose, radiator upper (K6A)	1
34	843639	Hose, radiator (K6A)	1
35	843646	Hose, radiator lower (K6A & 970)	1
36	894348	Tube, fan switch (K6A & Perkins)	1
37	844034	Hose, radiator upper (970)	1
38	842746	Hose, radiator upper (Perkins)	1
39	829787	Terminal, 45° 1/4" male	1
40	826590	Hose, 5/16 i.d. (Model 898671)	As Req'd.
41	838340	Cooler, oil (automatic transmission)	1
42 ◆	821893	Trim, push-on (Model 898671)	As Req'd.
43	844391	Hose, radiator lower (Perkins)	1
44	844390	Hose, radiator (Perkins)	1
45	452393	Screw, M8-1.25 x 60 (8.8)	2
46	832033	Clamp (970)	1
47	833715	Plug (970)	1
48	833858	Fitting, hose (970)	1
49	843738	Housing, fan sender (970)	1
50	843856	Gasket, fan switch housing (970)	2
51	009034880	Decal, fan	1
52	17561-73000	Cap, water (970)	1
53	17600-85831	Thermostat (970)	1
54	17680-50F70	Switch, fan	1
55	17689-50F00	•O-ring	1

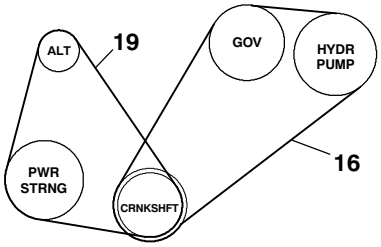
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

◇ The parts illustration only shows two (2) of Item 12 (825624 Hose Clamps). The other two are used to secure the cooler hoses to the transmission lines.

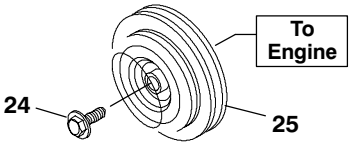
◆ Not Illustrated. Item 42 (821893 Push-on Trim) is used on Model 898671 to protect the automatic transmission hoses and is used on the right side motor mount and the frame rail.

ALTERNATOR, ENGINE BELTS, PULLEYS and BRACKETS (SUZUKI K6A)



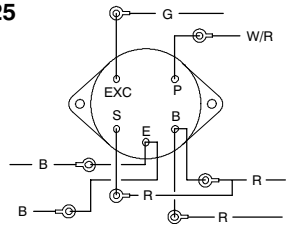


Engine Belt Diagram
Models 898627 & 898628

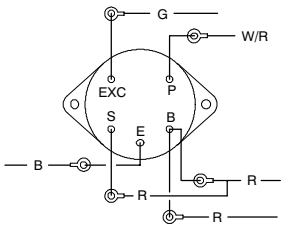


894588, 894507

ALTERNATOR WIRING



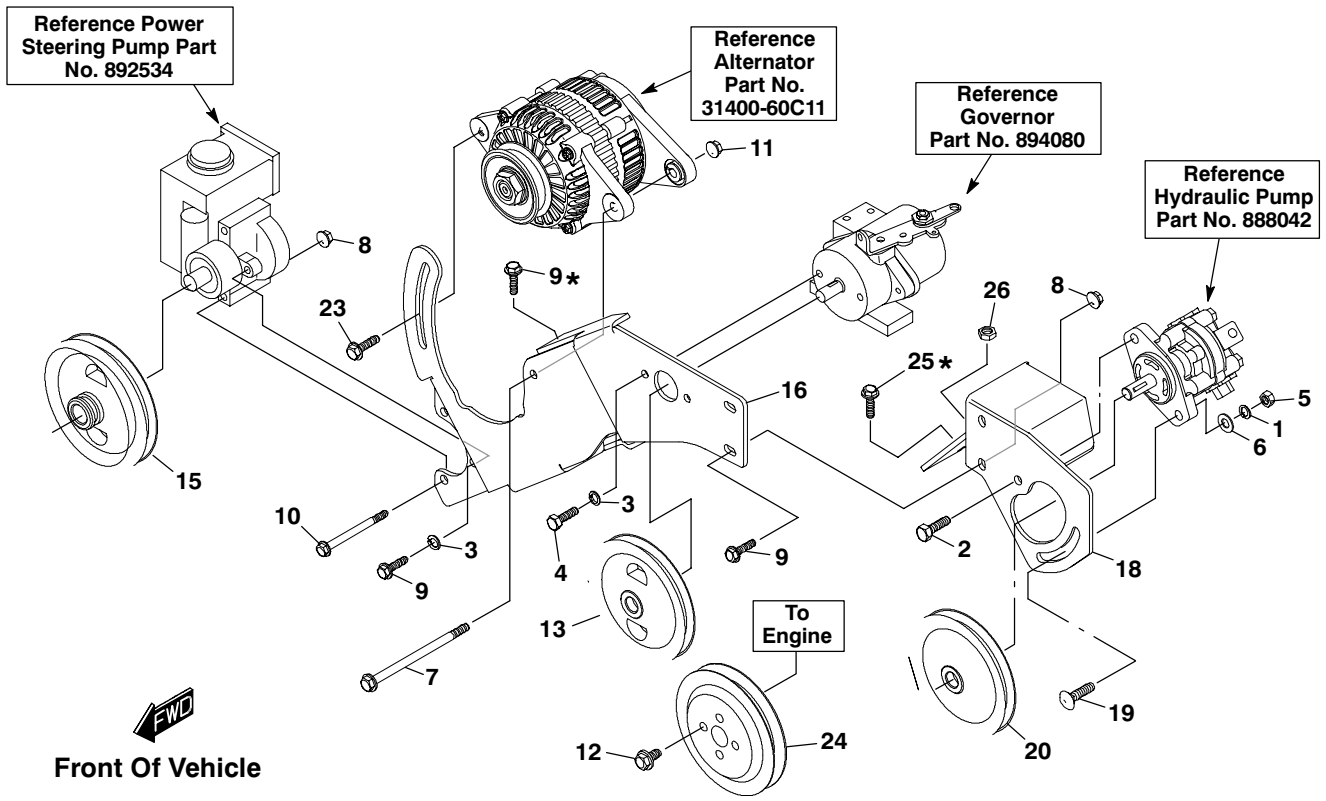
MODEL 898627



MODEL 898628

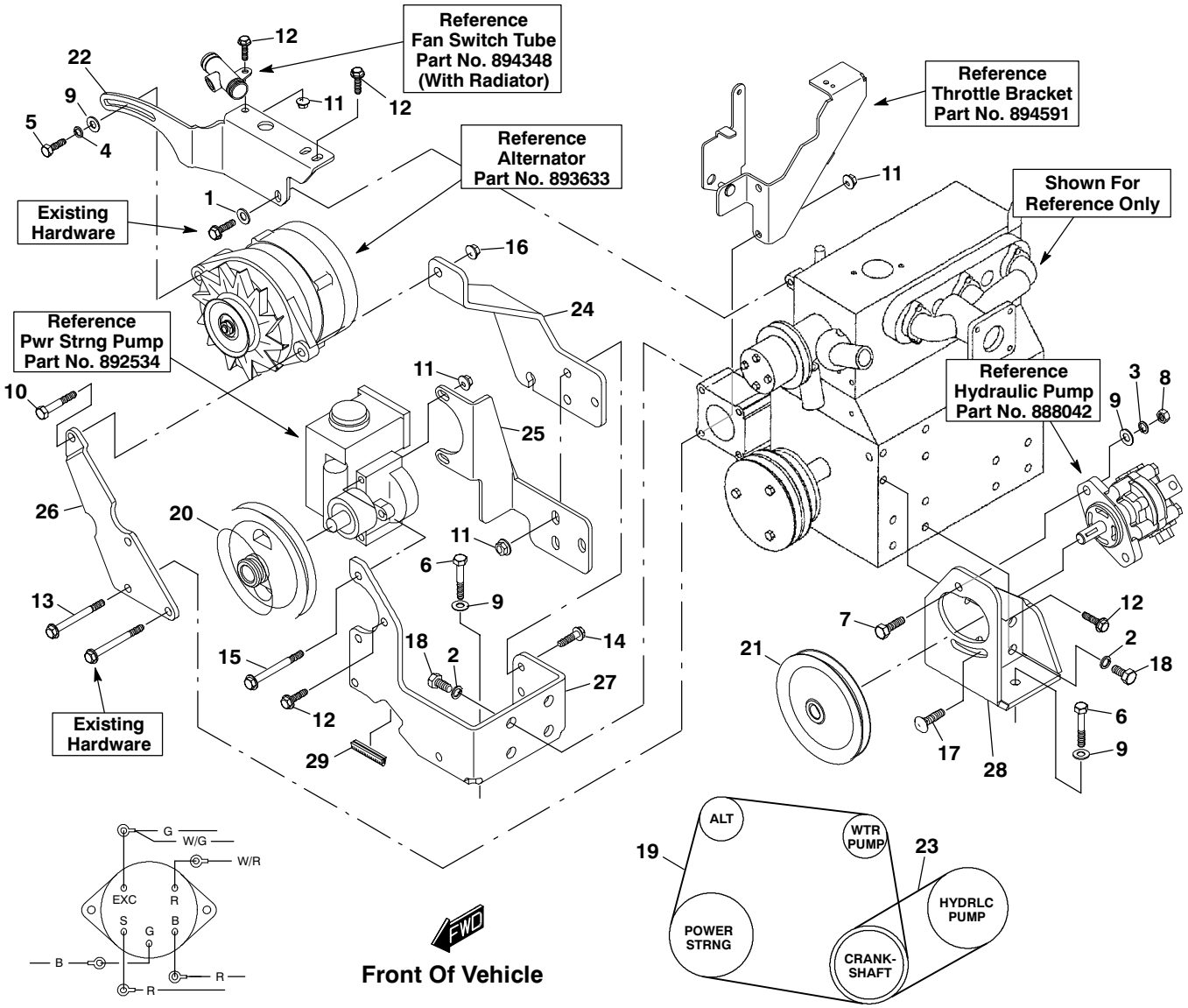
Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	3
2	120177	Lockwasher, 3/8	2
3	306835	Screw, 3/8-16 x 1 3/4	1
4	306325	Lockwasher, 5/16	3
5	306375	Nut, 1/4-20	1
6	306396	Lockwasher, 1/4	1
7	306416	Screw, 5/16-18 x 1	1
8	306450	Screw, 5/16-18 x 3/4	2
9	306562	Nut, 3/8-16	2
10	306981	Washer, 3/8	3
11	311213	Screw, 3/8-16 x 3	1
12	450453	Nut, M8-1.25 (G10.9)	5
13	452388	Screw, M8-1.25 x 20 (8.8)	8
14	452394	Screw, M8-1.25 x 70 (8.8)	2
15	844035	Pulley, 4.75" (governor)	1
16	841027	V-belt, 53 1/4" (1352 mm)	1
17	839907	Pulley, 5.50" (steering pump)	1
18	2703818.7	Bracket, alternator mounting	1
19	843998	V-belt, 40" (1016 mm)	1
20	894375	Bracket, governor mounting	1
21	800073	Bolt, carriage, 3/8-16 x 1 1/4	1
22	828100	Pulley, 5.50" (hydraulic pump)	1
23	548804	Nut, 3/8-16	1
24	12619-60B00	Bolt	1
25	95131-51F60	Pulley, crankshaft (manual transmission)	1
	95131-51F50	Pulley, crankshaft (automatic transmission)	1

ALTERNATOR, ENGINE BELTS, PULLEYS and BRACKETS
(SUZUKI 970)



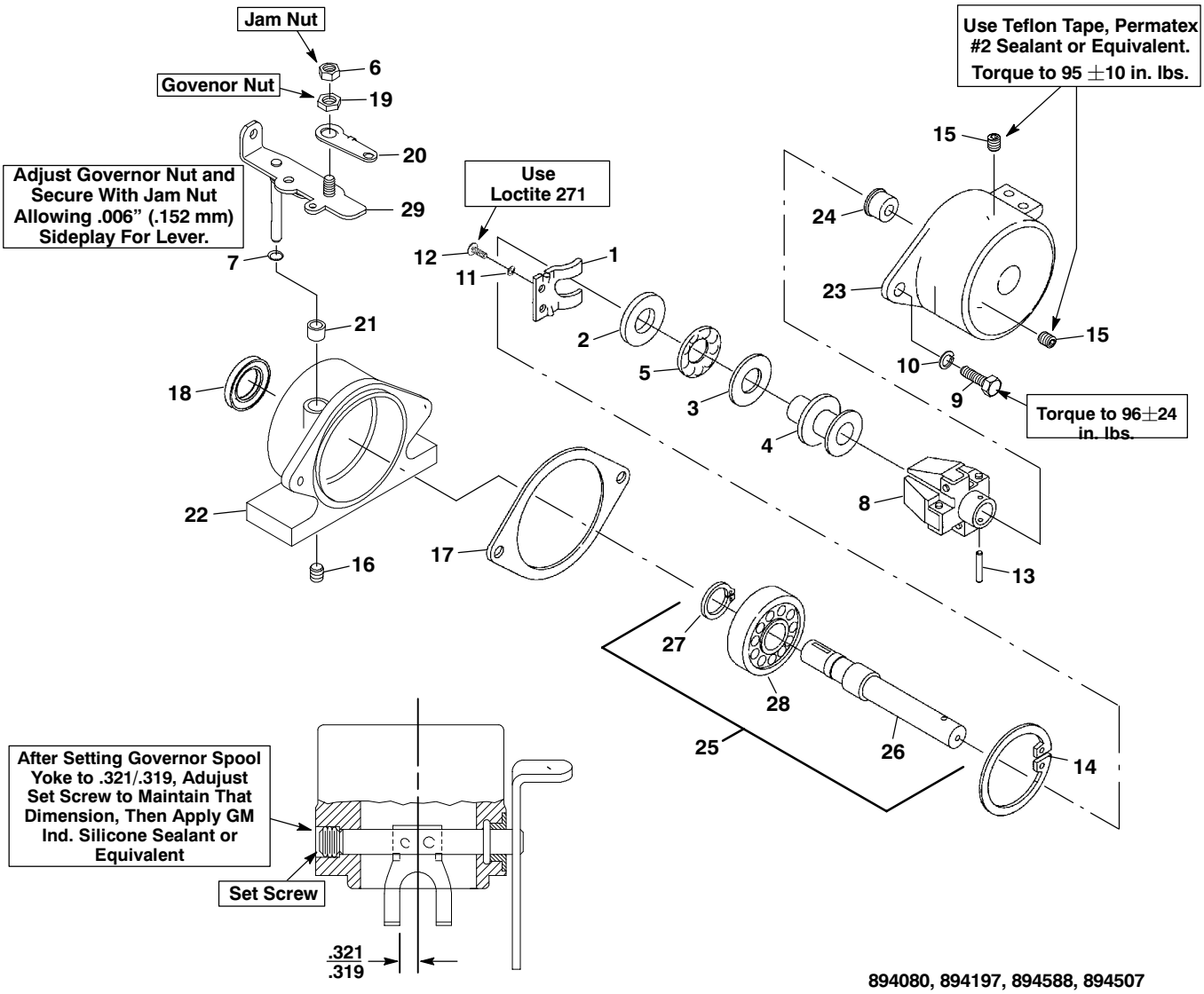
Ref. No.	Part No.	Description	No. Req'd
1	120177	Lockwasher, 3/8	2
2	306835	Screw, 3/8-16 x 1 3/4	1
3	306325	Lockwasher, 5/16	3
4	306450	Screw, 5/16-18 x 3/4	2
5	306932	Nut, 5/16-18	2
6	306981	Washer, 3/8	2
7	316909	Screw, 5/16-18 x 4 1/2	1
8	450453	Nut, M8-1.25 (G10.9)	4
9	452388	Screw, M8-1.25 x 20 (8.8)	7
10	452394	Screw, M8-1.25 x 70 (8.8)	2
11	800697	Nut, crownlock 5/16-18	1
12	800950	Screw, M6-1.00 x 10	4
13	844035	Pulley, 4.75" (governor)	1
14	836854	V-belt, 42" (1067 mm)	1
15	839907	Pulley, 5.50" (steering pump)	1
16	894362	Bracket, alternator, governor and power steering pump	1
17	844036	V-belt, 51" (1295 mm)	1
18	843702	Bracket, hydraulic pump	1
19	800073	Bolt, carriage, 3/8-16 x 1 1/4	1
20	828100	Pulley, 5.50" (hydraulic pump)	1
21	95131-51F60	Pulley, double groove	1
22	12619-60B00	Bolt, crankshaft	1
23	09118-08107	Bolt	1
24	17511-73001	Pulley, water pump	1
25	452389	Screw, M8-1.25 x 25 (8.8)	1
26	08316-10083	Nut	1

ALTERNATOR, ENGINE BELTS, PULLEYS and BRACKETS (DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 3/8	1
2	120166	Lockwasher, 1/2	8
3	120177	Lockwasher, 3/8	2
4	306325	Lockwasher, 5/16	1
5	306416	Screw, 5/16-18 x 1	1
6	306836	Screw, 3/8-16 x 2 1/4	2
7	306835	Screw, 3/8-16 x 1 1/4	1
8	306562	Nut, 3/8-16	2
9	306981	Washer, 3/8	5
10	311213	Screw, 3/8-16 x 3	1
11	450453	Nut, M8-1.25 (G10.9)	8
12	452388	Screw, M8-1.25 x 20 (8.8)	5
13	452394	Screw, M8-1.25 x 70 (8.8)	2
14	452390	Screw, M8-1.25 x 30 (8.8)	3
15	452395	Screw, M8-1.25 x 80 (8.8)	2
16	548804	Nut, flange 3/8-16	1
17	800073	Bolt, carriage 3/8-16 x 1 1/4	1
18	800921	Screw, M12-1.25 x 20 (8.8)	2
19	844301	V-belt, 48" (1219 mm)	1
20	839907	Pulley, 5.50" (steering pump)	1
21	839911	Pulley, 4.75" (hydraulic pump)	1
22	844269	Bracket, alternator adjusment	1
23	841966	V-belt, 29.5" (750 mm)	1
24	844271	Bracket, alternator rear	1
25	844268	Bracket, power steering, rear	1
26	844270	Bracket, alternator, front	1
27	844272	Mount, engine (right)	1
28	843760	Bracket, hydraulic pump	1
29	821893	Trim, push-on	As Req'd.

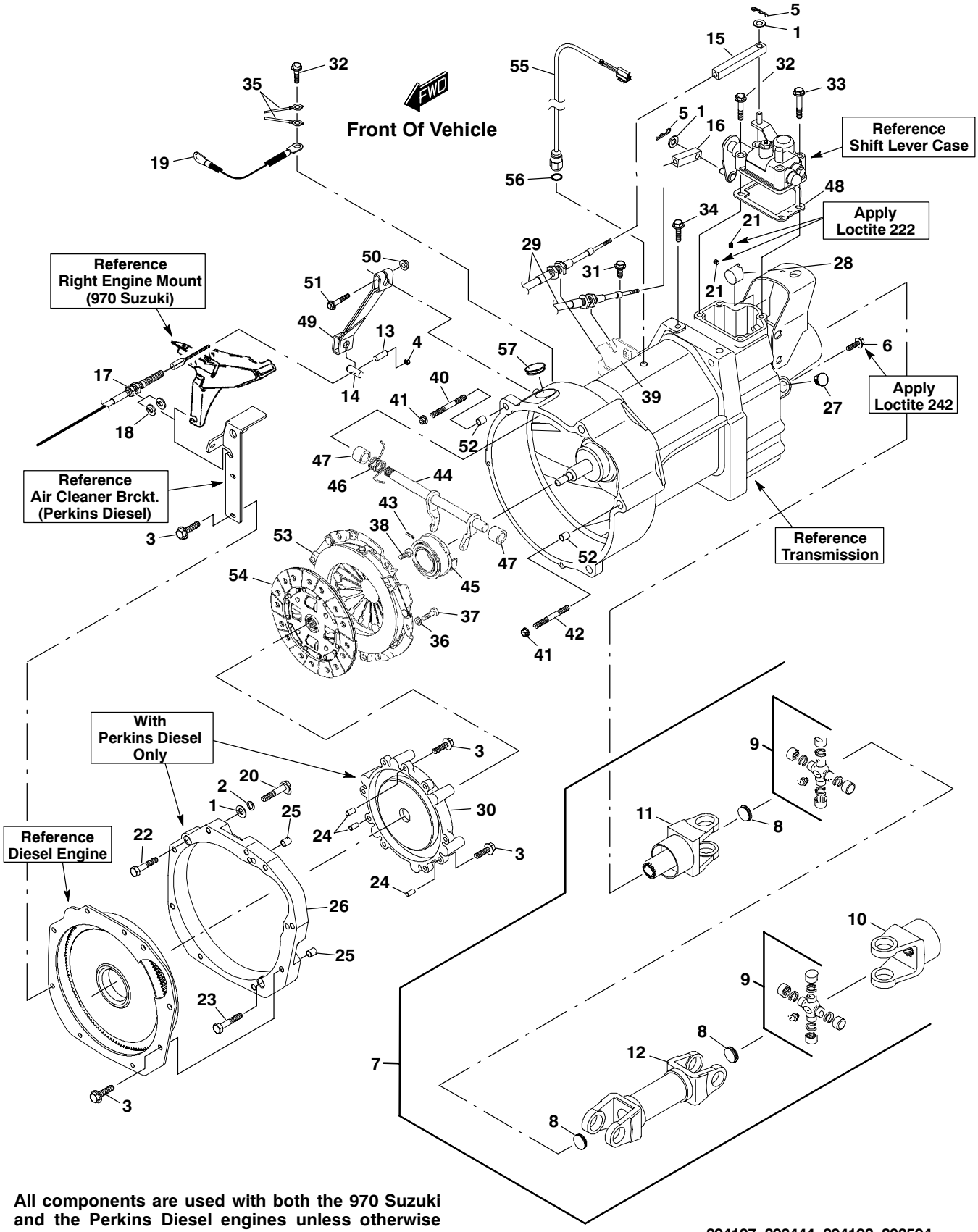
GOVERNOR (SUZUKI K6A and 970)



Ref. No.	Part No.	Description	No. Req'd
	894080	Governor, complete	1
1	111812	•Yoke, spool	1
2	111814	•Washer, thrust	1
3	111816	•Washer, thrust	1
4	111817	•Spool, governor	1
5	112840	•Bearing, thrust	1
6	130728	•Nut, jam, 1/4-20	1
7	158061-18	•O-ring	1
8	160410	•Carrier & weights	1
9	302288	•Screw, 1/4-20 x 1"	2
10	306396	•Lockwasher, 1/4"	2
11	306506	•Lockwasher, #6	2
12	306915	•Screw, machine, #6-32 x 5/16"	2
13	306966	•Pin, roll, 1/8" x 3/4"	1
14	548325	•Ring, retaining	1
15	800227	•Plug, 1/8-27	2
16	800558	•Screw, set, 3/8-16 x 5/16"	1
17	833056	•Gasket, governor	1
18	833102	•Seal, oil	1
19	835271	•Nut, governor arm	1
20	843537	•Bracket, governor knee	1
21	843149	•Bushing, steel	1
22	843157	•Head, governor	1
23	894471	•Reservoir, governor	1
24	833103	••Bearing, needle	1
25	888397	•Shaft, governor, complete	1
26	833066	••Shaft, governor	1
27	833104	••Ring, retaining	1
28	833345	••Bearing, ball	1
29	894067	•Lever, governor control	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

DRIVE SHAFT, CLUTCH and TRANSMISSION SHIFTER LINKAGE
(PERKINS DIESEL and SUZUKI 970)



All components are used with both the 970 Suzuki and the Perkins Diesel engines unless otherwise noted in the parts list shown on the following page.

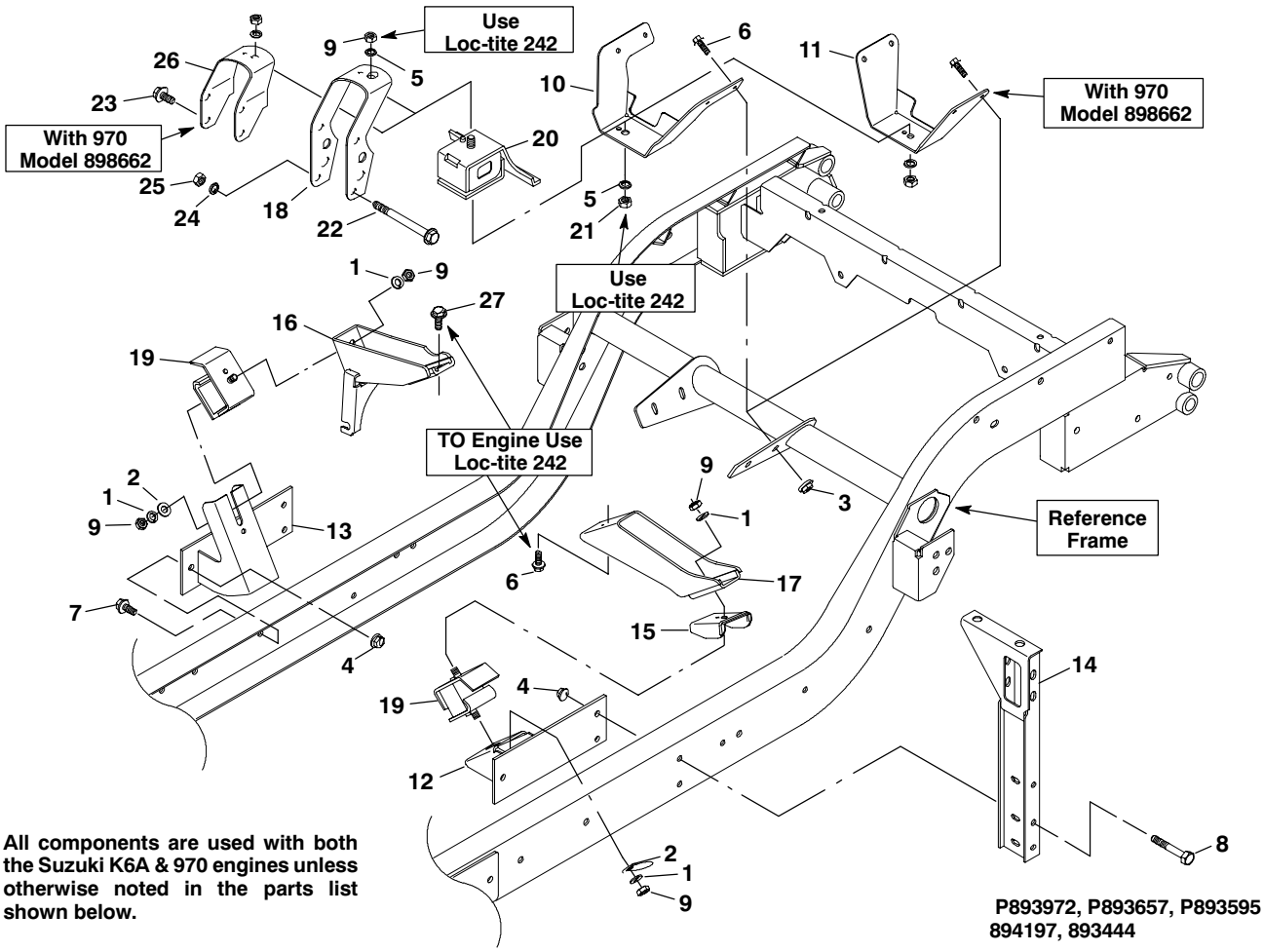
894197, 893444, 894198, 893594

DRIVE SHAFT, CLUTCH and TRANSMISSION SHIFTER LINKAGE (PERKINS DIESEL and SUZUKI 970)

Ref. No.	Part No.	Description	No. Req'd
1	103867	Washer, 5/16	4
2	306325	Lockwasher, 5/16	2
3	452389	Screw, M8-1.25 x 25 (8.8)	11
4	450377	Nut, nylock M6-1.00 (8.8)	1
5	548190	Hairpin	2
6	800934	Screw, M6-1.00 x 16 (8.8)	1
7	894272	Driveshaft, complete	1
8	548482	•Plug, expansion	3
9	826284	•Cross, u-joint	2
10	826285	•Yoke, universal	1
11	894432	•Yoke, front	1
12	894433	•Shaft, drive	1
13	833273	Bushing	1
14	842010	Bushing, clutch arm	1
15	843830	Connector, shift cable	1
16	843778	Connector, shift cable	1
17	894299	Cable, clutch	1
18	844202	Washer, slotted	4
19	892811	Wire, ground, black 24" (610 mm)	1
20	452392	Screw, M8-1.25 x 50 (8.8)	2
21	548222	Set screw, #8-32	2
22	800948	Screw, M10-1.25 x 35 (12.9)	1
23	800949	Screw, M10-1.25 x 50 (12.9)	1
24	839752	Pin, dowel, 8 mm x 18 mm	3
25	842961	Sleeve, alignment	2
26	843323	Adapter, transmission (Perkins)	1
27	843754	Plug	1
28	844228	Stop, 5th gear lockout	1
29	894179	Cable, shifter	2
30	894645	Ring, pressure plate (Perkins)	1
31	01550-08803	Screw	1
32	01550-08403	Screw	4
33	01550-08553	Screw	1
34	09103-08131	Screw	1
35	39312-50F01	Wire, noise suppressor	2
36	08321-01083	Lockwasher	2
37	09111-08035	Screw	2
38	09117-08096	Screw	4
39	28391-85202	Bracket, shift cables	1
40	01421-10403	Stud	1
41	08316-10103	Nut	2
42	01421-10503	Stud	1
43	09205-03019	Pin, roll	1
44	23260-85203	Shaft, clutch release	1
45	23265-85200	Bearing, clutch release	1
46	09448-20007	Spring, clutch release	1
47	09300-14017	Bushing, clutch release	2
48	845223	Gasket, shifter case	1
49	23266-85002	Arm, clutch release	1
50	08316-10083	Nut	1
51	01550-08353	Screw	1
52	04211-13149	Sleeve, alignment	2
53	22100-85200	Cover assembly, clutch	1
54	22400-85141	Disc, compression clutch	1
55	37610-80023	Switch, backup lamp	1
56	09280-11002	•O-ring	1
57	09250-30003	Plug, transmission inspection timing	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

ENGINE and TRANSMISSION MOUNTS
(SUZUKI K6A and 970)

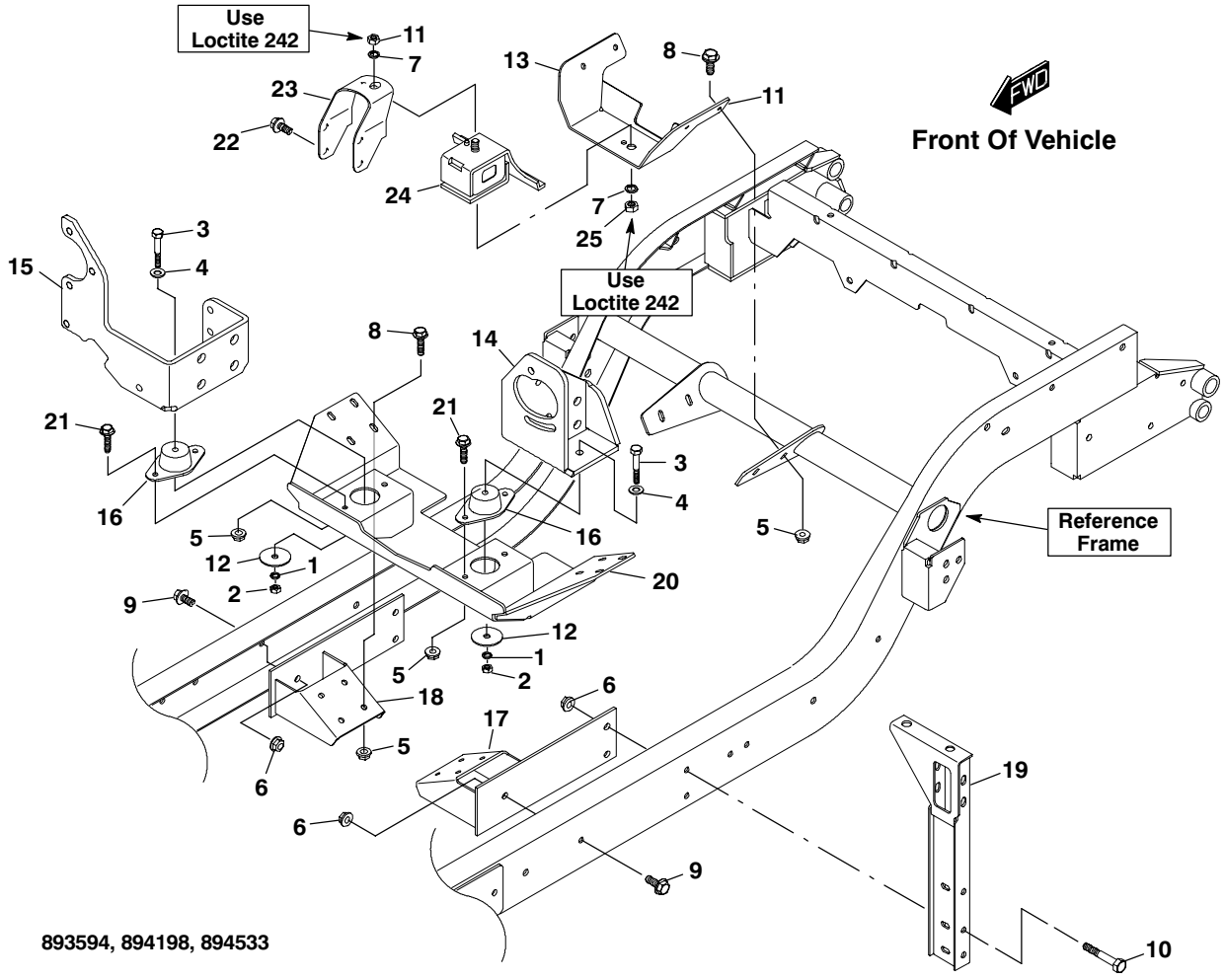


All components are used with both the Suzuki K6A & 970 engines unless otherwise noted in the parts list shown below.

P893972, P893657, P893595
894197, 893444

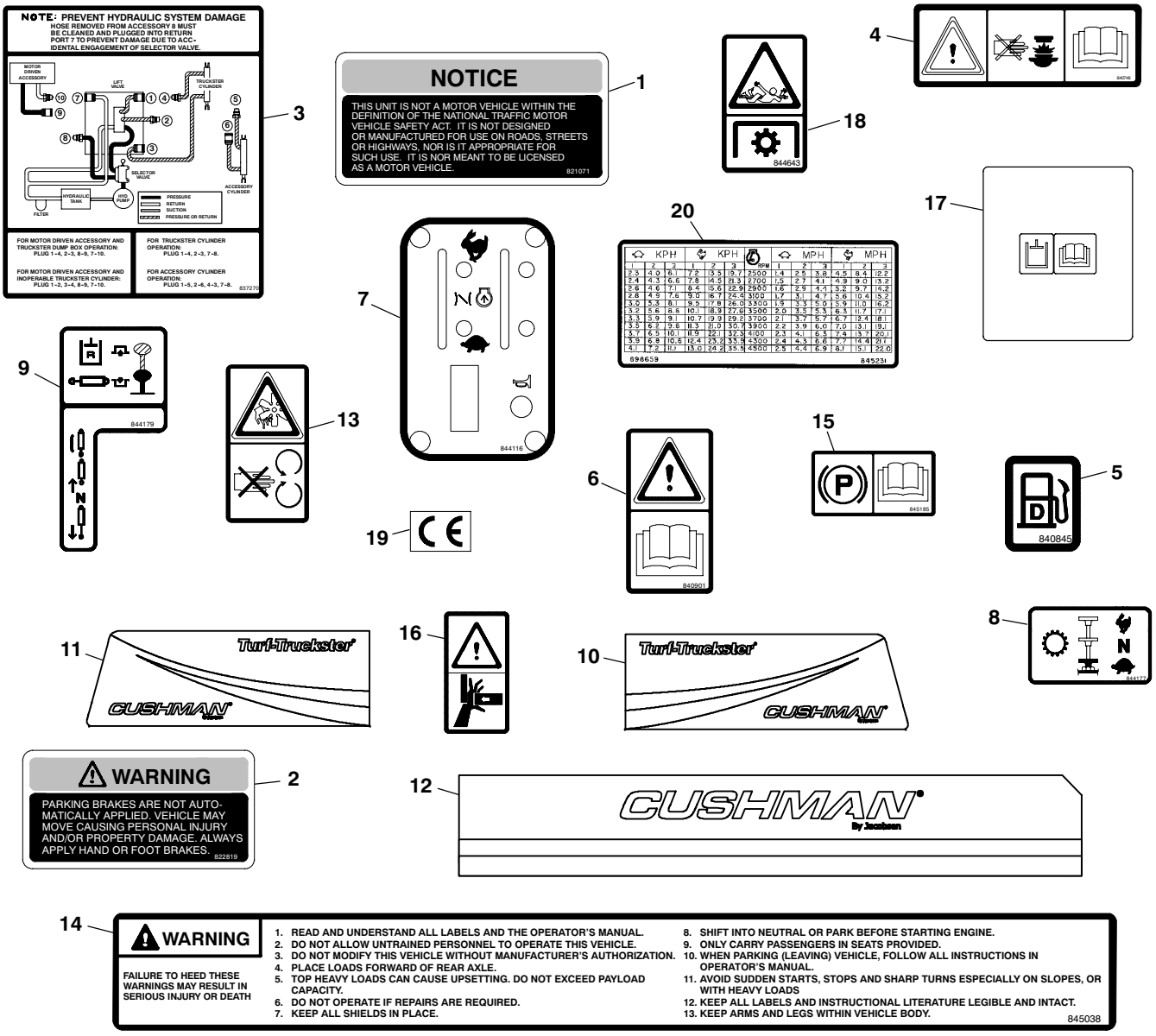
Ref. No.	Part No.	Description	No. Req'd
1	303269	Lockwasher, 7/16	4
2	306982	Washer, 7/16	2
3	450453	Nut, M8-1.25 (G10.9)	6
4	452454	Nut, M10-1.50 (10.9)	6
5	450412	Lockwasher, M10	2
6	452389	Screw, M8-1.25 x 25 (8.8)	4
7	452398	Screw, M10-1.50 x 20 (8.8)	2
8	452406	Screw, M10-1.50 x 90 (8.8)	4
9	800571	Nut, M10-1.25 (8.8)	5
10	843444	Bracket, transmission to frame (Suzuki K6A)	1
11	843530	Bracket, transmission to frame (Suzuki 970)	1
12	894009	Mount assembly, motor (left) (Suzuki K6A)	1
	894293	Mount assembly, motor (left) (Suzuki 970)	1
13	894010	Mount assembly, motor, right (Suzuki K6A)	1
	894292	Mount assembly, motor, right (Suzuki 970)	1
14	893525	Support, platform	2
15	11616-85000	Cover, engine mount	1
16	11640-53F20	Support, engine (right) (Suzuki K6A)	1
	11640-85201	Support, engine (right) (Suzuki 970)	1
17	11650-85561	Support, engine (left) (Suzuki K6A)	1
	11650-85550	Support, engine (left) (Suzuki 970)	1
18	11741-85510	Support, transmission, automatic trans. (K6A)	1
	11741-85000	Support, transmission, manual trans. (K6A)	1
19	11610-60C01	Mount, engine (front)	2
20	11710-77100	Bracket, rear mount	1
21	08310-00103	Nut	1
22	01500-08953	Screw (K6A)	2
23	01550-08163	Screw (970)	4
24	08321-01083	Lockwasher (K6A)	2
25	08310-00083	Nut (K6A)	2
26	11741-85200	Support, transmission (970)	1
27	01550-10203	Bolt (K6A eng. mount)	3

ENGINE and TRANSMISSION MOUNTS (DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	120177	Lockwasher, 3/8	2
2	306562	Nut, 3/8-16	2
3	306836	Screw, 3/8-16 x 2 1/4	2
4	306981	Washer, 3/8	2
5	450453	Nut, M8-1.25 (G10.9)	16
6	452454	Nut, M10-1.50 (10.9)	6
7	450412	Lockwasher, M10	2
8	452389	Screw, M8-1.25 x 25 (8.8)	12
9	452398	Screw, M10-1.50 x 20 (8.8)	2
10	452406	Screw, M10-1.50 x 90 (8.8)	4
11	800571	Nut, M10-1.25 (8.8)	1
12	809174	Washer, 3/8 (1.94" dia.)	1
13	843568	Mount, transmission	1
14	843760	Mount, hydraulic pump	1
15	844272	Mount, engine (right)	1
16	841885	Mount, isolation	2
17	894581	Mount, motor (left)	1
18	894582	Mount, motor (right)	1
19	893525	Support, platform	2
20	894580	Frame, engine mount	1
21	452388	Screw, M8-1.25 x 20 (8.8)	4
22	01550-08163	Screw	4
23	11741-85200	Support, transmission	1
24	11710-77100	Bracket, rear mount	1
25	08310-00103	Nut	1

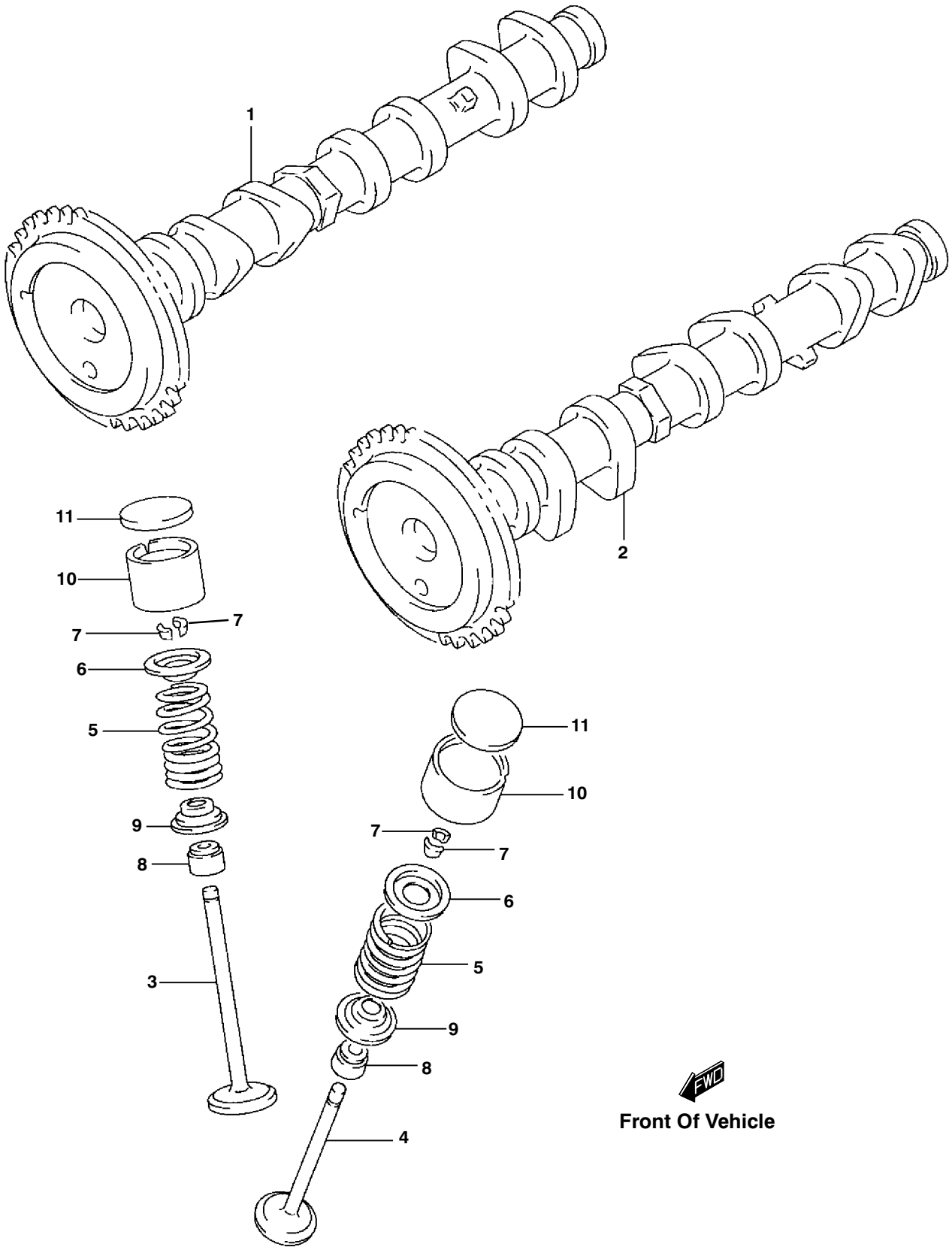
DECALS (TURF MODELS)



Ref. No.	Part No.	Description	No. Req'd
1	821071	Decal, Notice not motor vehicle	1
2	822819	Decal, Warning, park brake	1
3	837270	Decal, remote hyd. connections	1
4	840754	Decal, Warning, pressure	1
5	840845	Decal, diesel fuel only	1
6	840901	Decal, Warning, read ops. man.	1
7	844116	Decal, LH dash, turf	1
8	844177	Decal, aux. transmission	1
9	844179	Decal, hydraulic controls	1
10	74792	Decal, turf LH	1
11	74766	Decal, turf RH	1
12	74764	Decal, Cushman-Textron	1
13	009034880	Decal, Warning, fan	1
14	845038	Decal, Vehicle Operation	1
15	845185	Decal, Park brake CE	1
16	845027	Decal, Pinch point	As Req'd.
17	840857	Decal, Remote hydraulics CE	1
18	844643	Decal, Warning, pto	1
19	009039290	Decal, CE	1
20	845231	Decal, ground speed (K6A A)	1
*	845232	Decal, ground speed (K6A M)	1
*	845233	Decal, ground speed (970)	1
*	845234	Decal, ground speed (diesel)	1

* Not illustrated

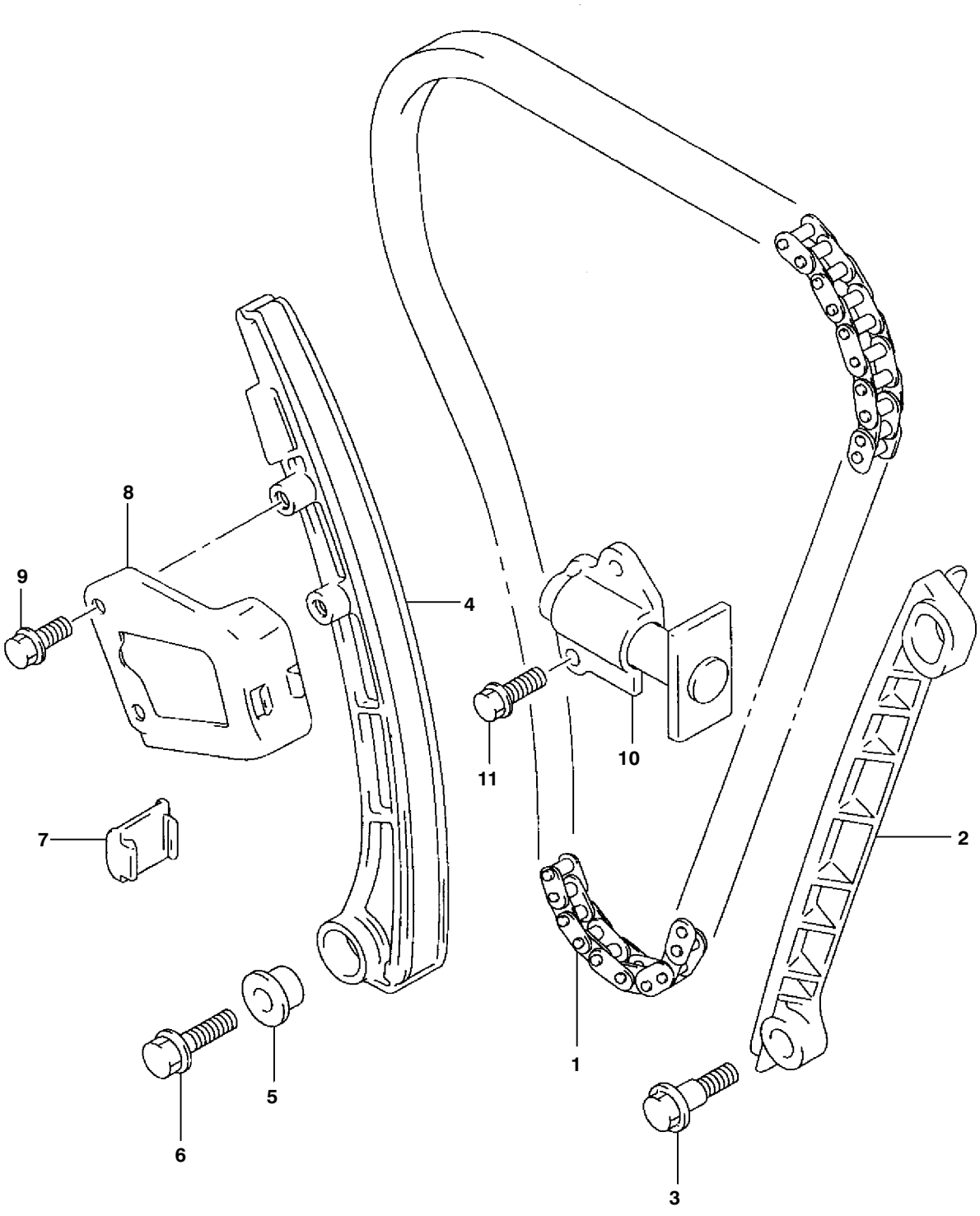
CAMSHAFT and COMPONENTS (SUZUKI K6A)



CAMSHAFT and COMPONENTS (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120030	Camshaft, intake	1	
2	4120031	Camshaft, exhaust	1	
3	4120032	Valve, intake	6	
4	4120033	Valve, exhaust	6	
5	4120034	Spring, valve	12	
6	4120035	Retainer, spring	12	
7	2701970	Cotter, valve	24	
8	2701972	Seal, valve stem oil	12	
9	2701971	Seat, spring	12	
10	4119911	Tappet	12	
11	4119912	Shim, tappet	As Req'd	T:2.18
	4119913	Shim, tappet	As Req'd	T:2.20
	4119914	Shim, tappet	As Req'd	T:2.22
	4119915	Shim, tappet	As Req'd	T:2.24
	4119916	Shim, tappet	As Req'd	T:2.26
	4119917	Shim, tappet	As Req'd	T:2.28
	4119918	Shim, tappet	As Req'd	T:2.30
	4119919	Shim, tappet	As Req'd	T:2.32
	4119920	Shim, tappet	As Req'd	T:2.34
	4119921	Shim, tappet	As Req'd	T:2.36
	4119922	Shim, tappet	As Req'd	T:2.38
	4119923	Shim, tappet	As Req'd	T:2.40
	4119924	Shim, tappet	As Req'd	T:2.42
	4119925	Shim, tappet	As Req'd	T:2.44
	4119926	Shim, tappet	As Req'd	T:2.46
	4119927	Shim, tappet	As Req'd	T:2.48
	4119928	Shim, tappet	As Req'd	T:2.50
	4119929	Shim, tappet	As Req'd	T:2.52
	4119930	Shim, tappet	As Req'd	T:2.46
	4119931	Shim, tappet	As Req'd	T:2.46
	4119932	Shim, tappet	As Req'd	T:2.46
	4119933	Shim, tappet	As Req'd	T:2.46
	4119934	Shim, tappet	As Req'd	T:2.46
	4119935	Shim, tappet	As Req'd	T:2.46
	4119936	Shim, tappet	As Req'd	T:2.46
	4119937	Shim, tappet	As Req'd	T:2.46
	4119938	Shim, tappet	As Req'd	T:2.46
	4119939	Shim, tappet	As Req'd	T:2.46
	4119940	Shim, tappet	As Req'd	T:2.46
	4119941	Shim, tappet	As Req'd	T:2.46
	4119942	Shim, tappet	As Req'd	T:2.46
	4119943	Shim, tappet	As Req'd	T:2.46
	4119944	Shim, tappet	As Req'd	T:2.46
	4119945	Shim, tappet	As Req'd	T:2.46
	4119946	Shim, tappet	As Req'd	T:2.46
	4119947	Shim, tappet	As Req'd	T:2.46
	4119948	Shim, tappet	As Req'd	T:2.46
	4119949	Shim, tappet	As Req'd	T:2.46
	4119950	Shim, tappet	As Req'd	T:2.46
	4119951	Shim, tappet	As Req'd	T:2.46
	4119952	Shim, tappet	As Req'd	T:2.46
	4119953	Shim, tappet	As Req'd	T:2.46

CAM CHAIN (SUZUKI K6A)

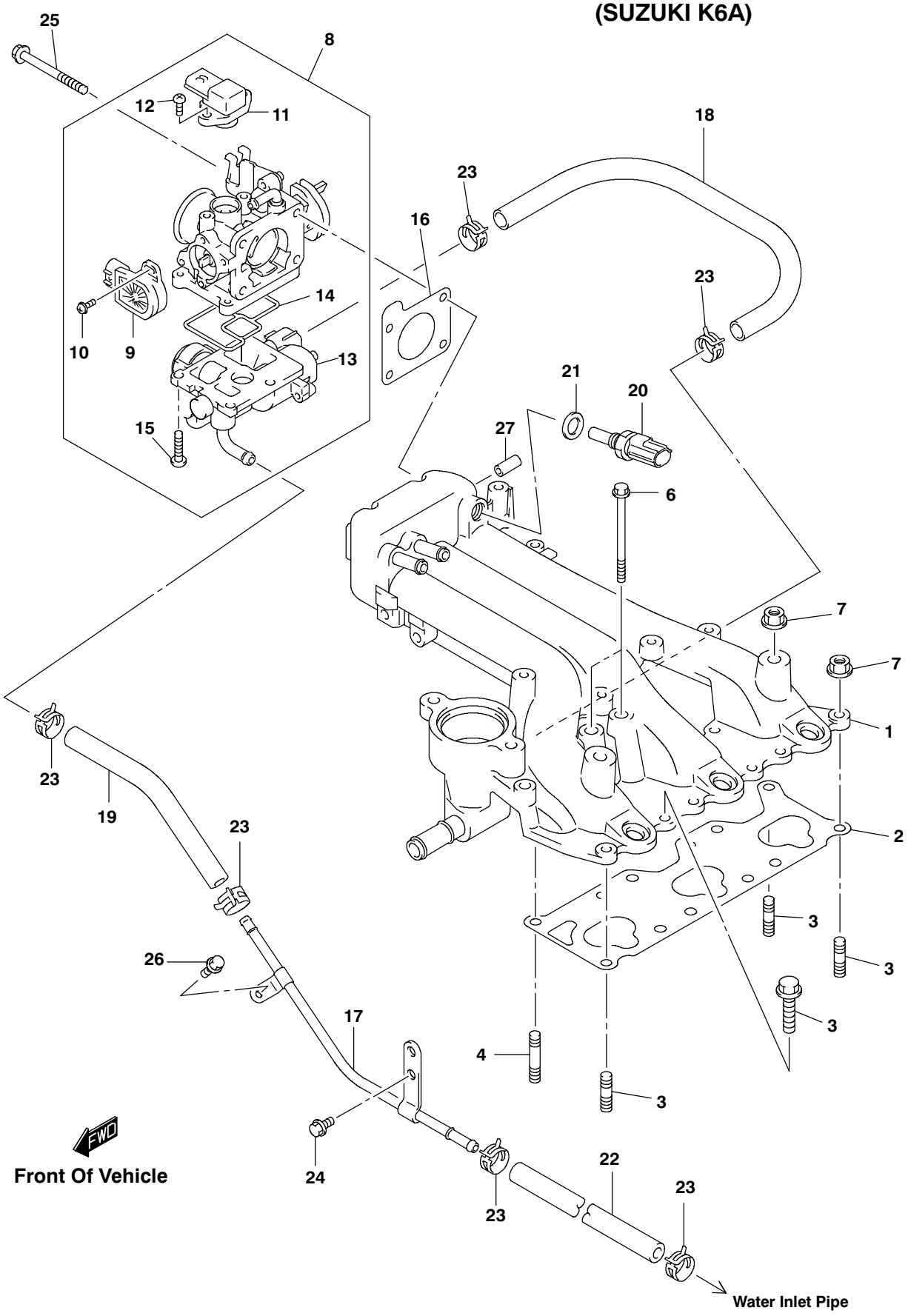


Front Of Vehicle

CAM CHAIN (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120037	Chain, timing	1	
2	4120038	Guide, chain	1	
3	4120039	Bolt	2	
4	4120040	Tensioner, chain	1	
5	4120041	Spacer	1	
6	2702469	Bolt	1	
7	4120042	Pad, tensioner	1	
8	4120043	Link, tensioner	1	
9	2702486	Bolt	2	
10	4120044	Adjuster, tensioner	1	
11	2701834	Bolt	2	

CARBURETOR and INTAKE MANIFOLD (SUZUKI K6A)

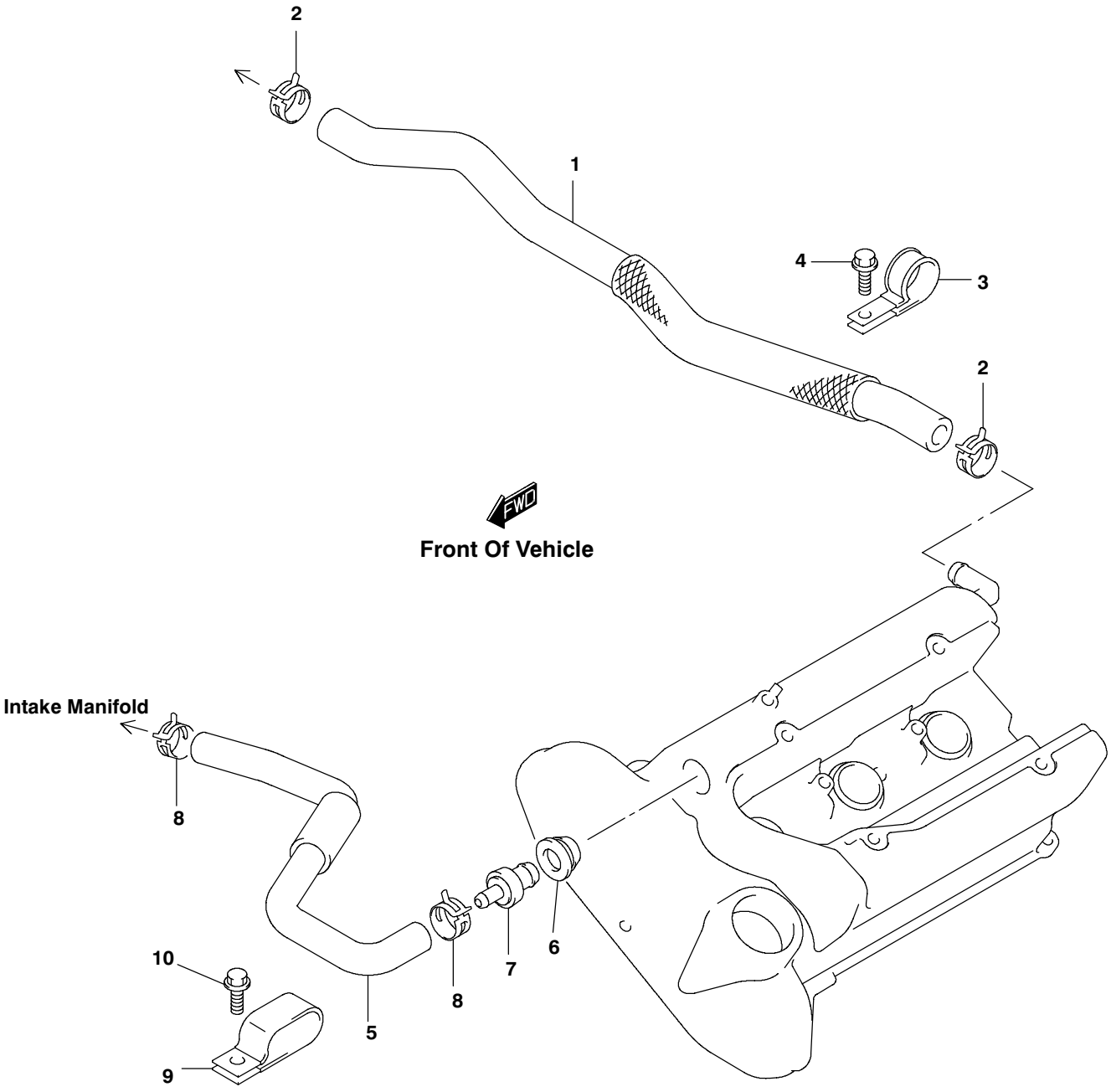


CARBURETOR and INTAKE MANIFOLD
(SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120045	Manifold, intake	1	
2	4119959	Gasket	1	
3	2702523	Stud bolt	3	
4	4120047	Stud bolt	1	
5	2701834	Bolt	6	
6	4120048	Bolt	2	
7	2701914	Nut	4	
8	4120049	Body, throttle	1	
9	2701995	•Sensor, throttle position	1	
10	2701996	•Screw	2	
11	2702477	•Sensor, pressure	1	
12	2701998	•Screw	6	
13	2701999	•Valve, ISC	1	
14	2702000	•Gasket	1	
15	2701998	•Screw	4	
16	2701803	Gasket	1	
17	4120025	Hose, water	1	
18	4120050	Hose, water throttle inlet	1	
19	4116846	Hose, water	1	
20	4120051	Sensor, inlet air temperature	1	
21	4120052	Gasket	1	
22	4120100	Hose, water	1	
23	2702429	Clip	2	
24	2702486	Bolt	1	
25	2702001	Bolt, throttle body	4	
26	2702475	Bolt	1	
27	2702431	Plug	1	

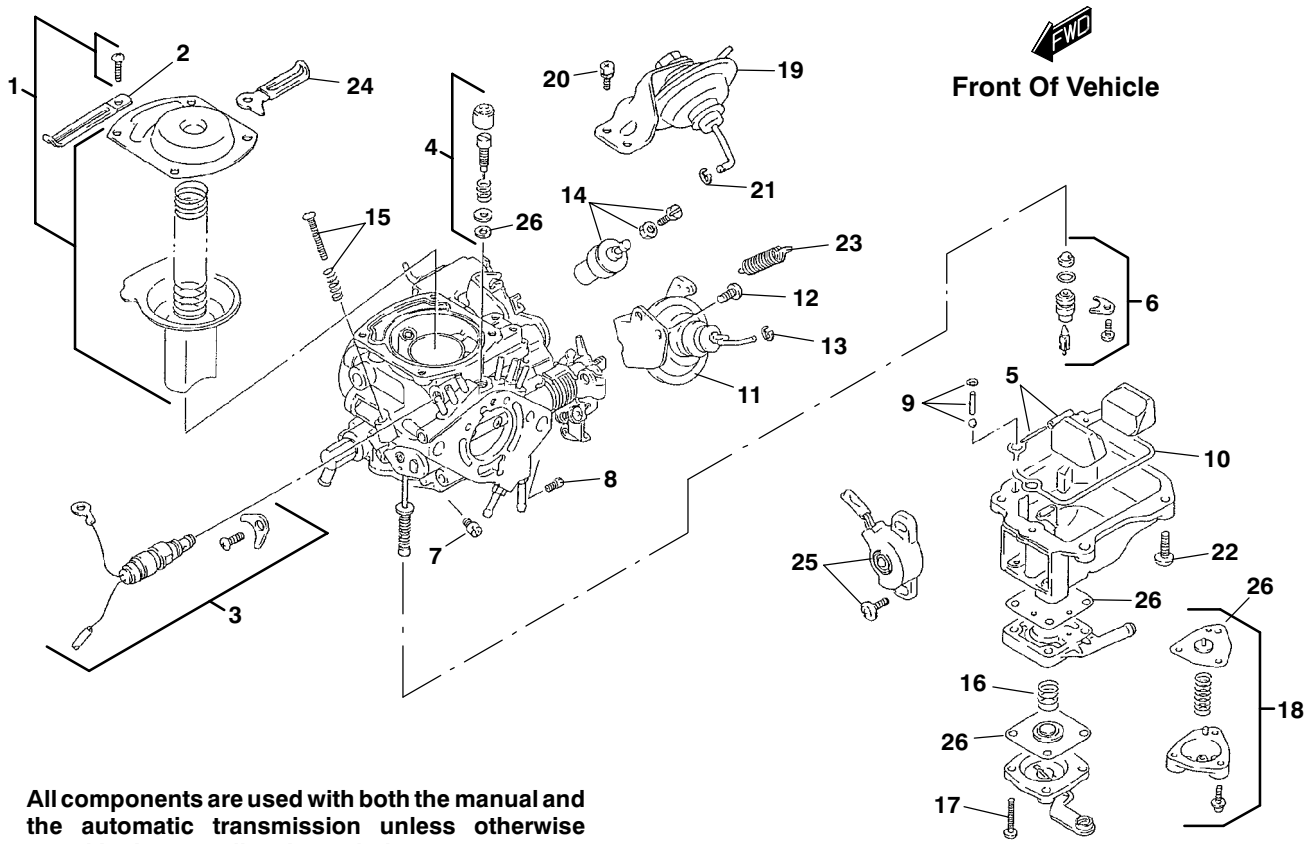
•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

BREATHER HOSE (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120054	Hose, breather	1	
2	2702484	Clip	2	
3	2702485	Clamp	1	
4	2702486	Bolt	1	
5	4120055	Hose, PCV	1	
6	2702489	Seal, PCV valve	1	
7	4120056	Valve, PCV	1	
8	2702491	Clip	2	
9	4120057	Clamp	1	
10	2702486	Bolt	1	

CARBURETOR (SUZUKI K6A)

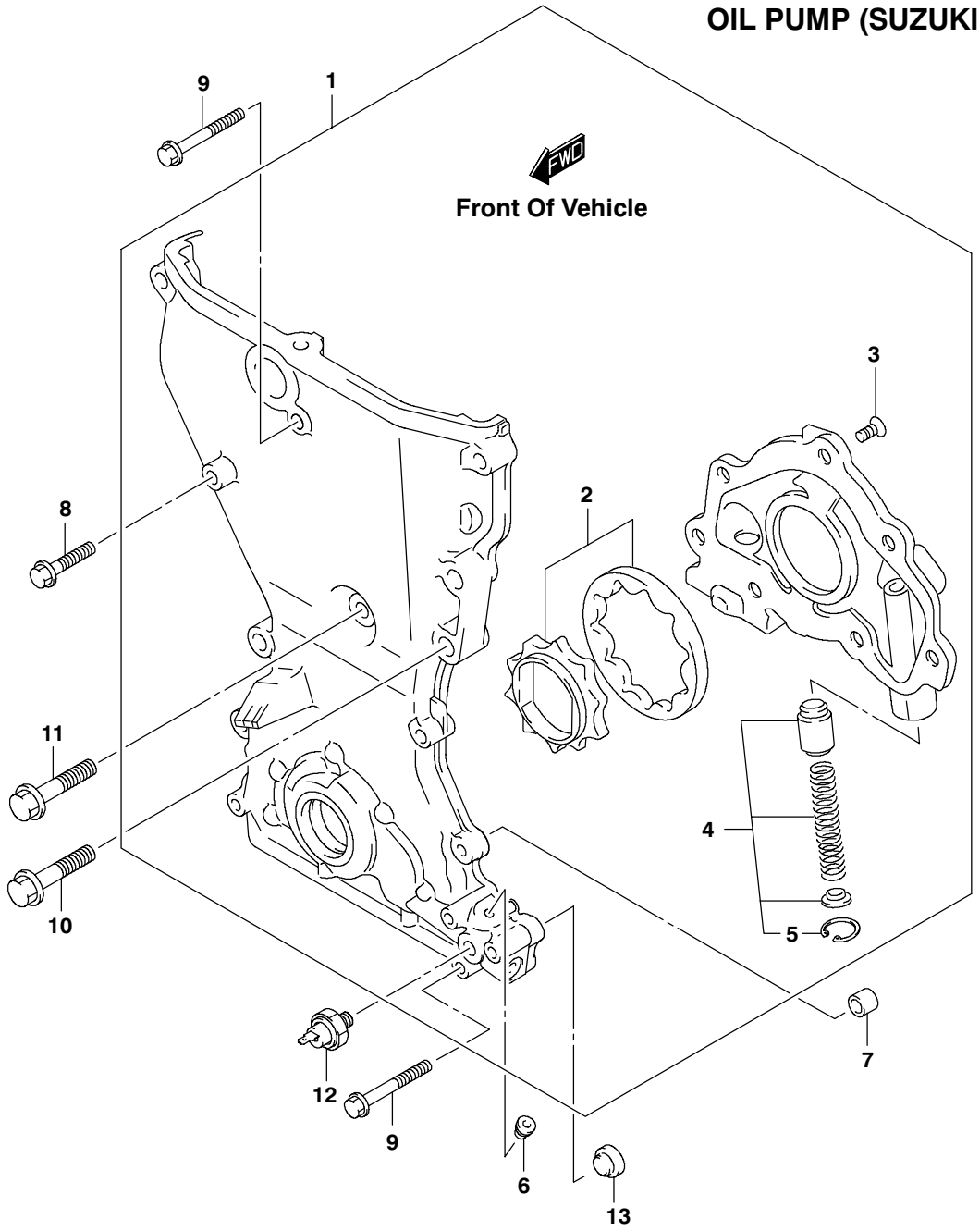


All components are used with both the manual and the automatic transmission unless otherwise noted in the parts list shown below.

Ref. No.	Part No.	Description	No. Req'd
	2700623	Carburetor (automatic transmission)	1
	2700622	Carburetor (manual transmission)	1
1	13310-53FT0	•Valve set, piston	1
2	09404-06433	•Clamp	1
3	13260-50FT0	•Solenoid set	1
4	13270-850T0	•Screw set, idle adjust	1
5	13250-70DT0	•Float	1
6	13370-70DT0	•Valve, needle	1
7	09491-92005	•Jet, main (auto. trans.)	1
(7)	09491-92006	•Jet, main (mnl. trans.)	1
8	09492-26002	•Jet, power (auto. trans.)	1
(8)	09492-27010	•Jet, power (mnl. trans.)	1
9	13240-60CT0	•Weight set, pump	1
10	13251-77320	•Gasket, float bowl	1
11	13350-50F00	•Chamber, depression	1
12	02112-05107	•Screw	1
13	13415-85010	•Clip	1
14	13228-840T0	•Element, thermo	1
15	13275-63CT0	•Screw, throttle adjustment (auto. trans.)	1
(15)	13275-851T0	•Screw, throttle adjustment (mnl. trans.)	1
16	13494-78420	•Spring	1
17	02112-34253	•Bolt	4
18	13320-66CT0	•Valve set, power	1
19	95550-85010	•Actuator, idle-up (auto. trans.)	1
(19)	95550-85500	•Actuator, idle-up (mnl. trans.)	1
20	13372-70D00	•Bolt (auto. trans.)	2
(20)	09137-05009	•Bolt (mnl. trans.)	2
21	13384-78330	•Retainer, E-ring	1
22	13601-05148	•Bolt	4
23	13326-70D00	•Spring	1
24	09404-06432	•Clamp	1
25	13564-63CT0	•Sensor, throttle position	1
26	13380-854T0	•Gasket set (auto. trans.)	1
(26)	13380-851T0	•Gasket set (mnl. trans.)	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

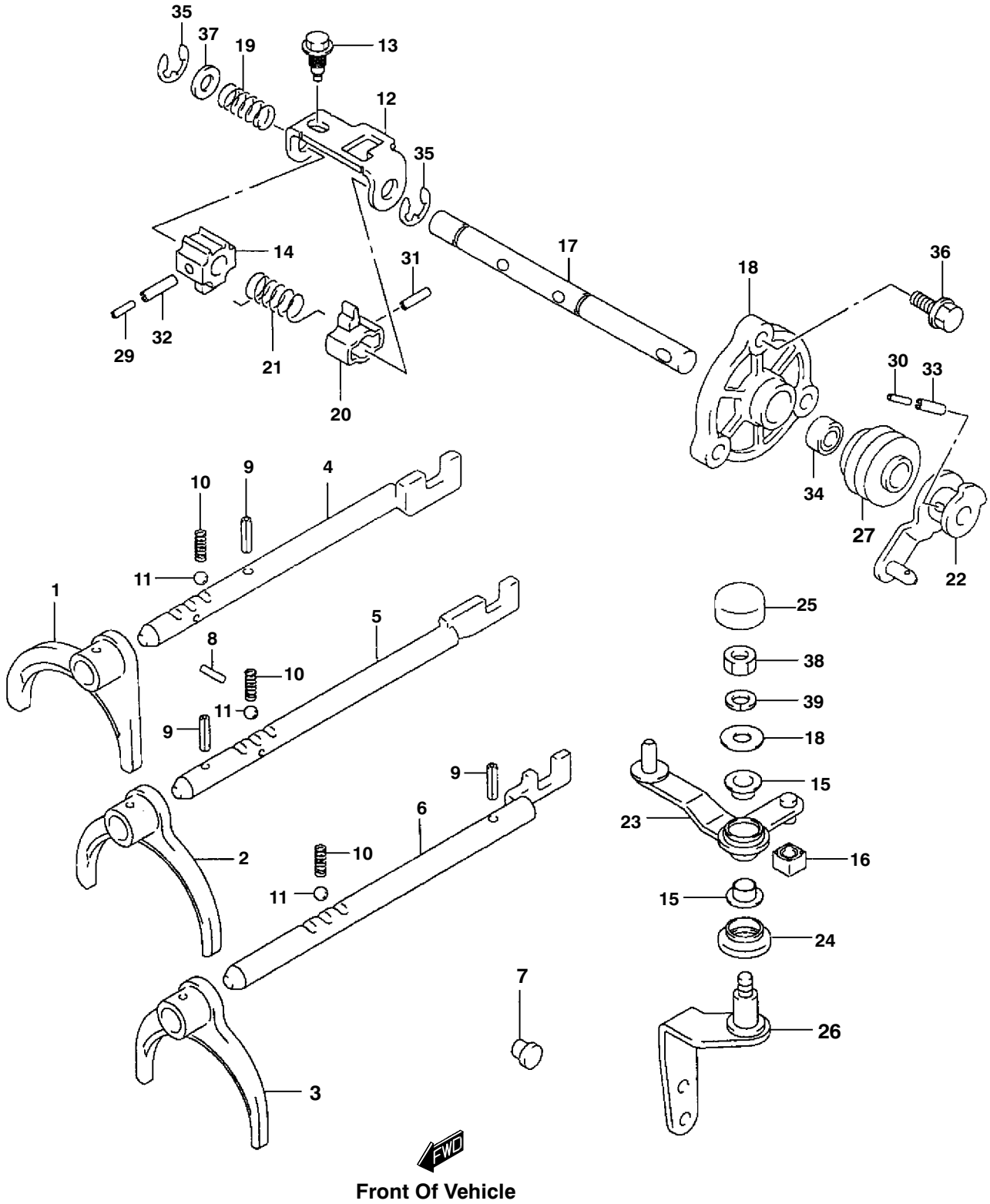
OIL PUMP (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120068	Pump, oil	1	
2	4120069	•Rotor set	1	
3	2702517	•Screw	7	
4	4120070	•Valve set	1	
5	4120071	••Circlip	1	
6	2701820	Plug	1	
7	2701949	Pin	2	
8	2702519	Bolt	6	
9	2702001	Bolt	4	
10	2702659	Bolt	5	
11	4120072	Bolt, 8 x 40	1	
12	2701904	Switch, oil pressure	1	
13	4120073	Collar, oil gallery	1	

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

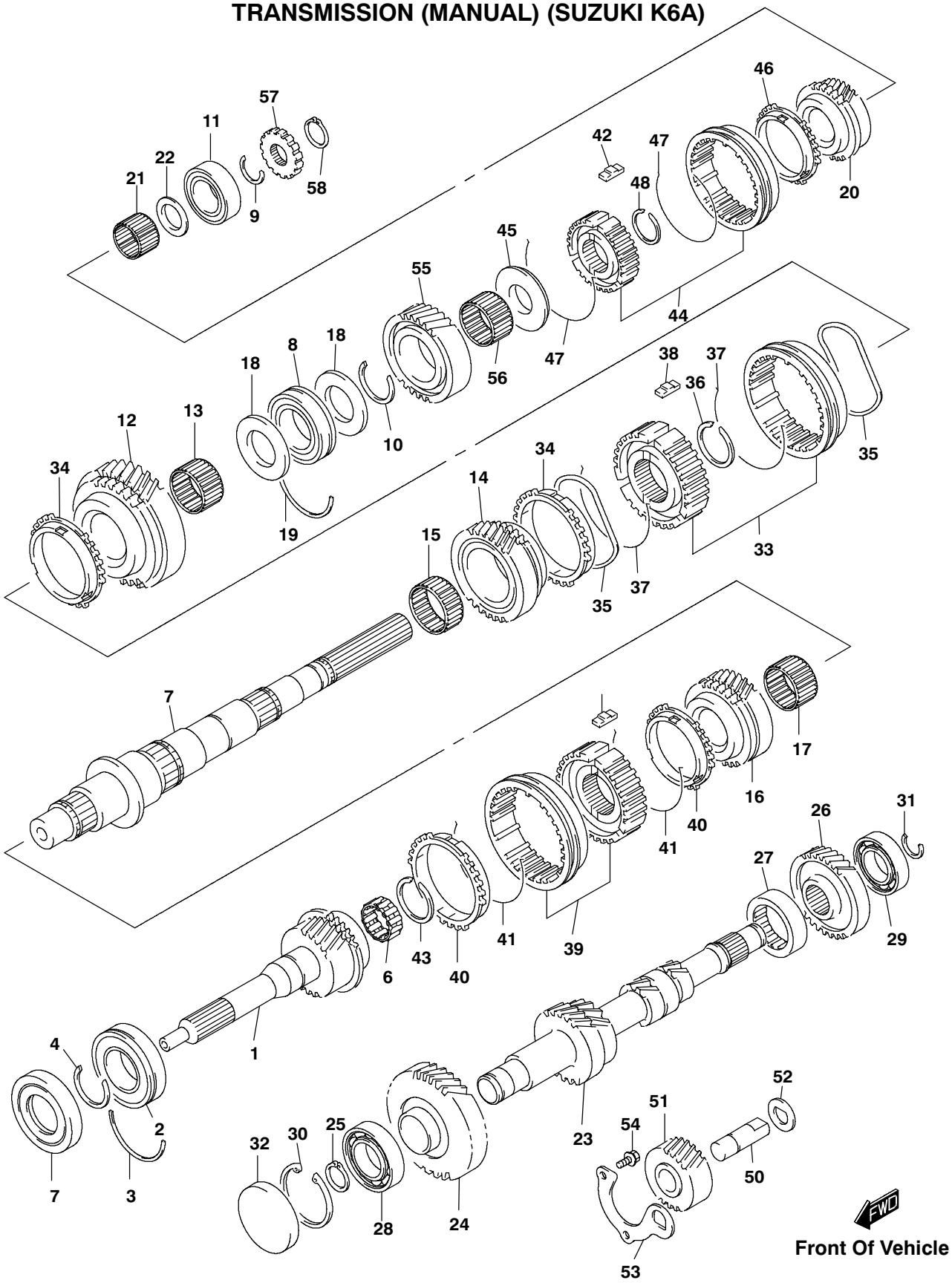
GEAR SHIFT FORK (MANUAL TRANSMISSION) (SUZUKI K6A)



GEAR SHIFT FORK (MANUAL TRANSMISSION) (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	2702618	Fork, low speed gear shift	1	
2	2702619	Fork, high speed gear shift	1	
3	2702620	Fork, 5th & reverse gear shift	1	
4	2702621	Shaft, low speed	1	
5	4120091	Shaft, high speed gear shift	1	
6	2702625	Shaft, 5th & reverse	1	
7	2702626	Plug	1	
8	2702627	Pin	1	
9	2702628	Pin	3	
10	2702629	Spring, gear shift locating	3	
11	2702630	Ball	5	
12	2701111	Plate, gear shift interlock	1	
13	4120092	Bolt, gear shift stop	1	
14	2702633	Lever, gear shift & select	1	
15	2702634	Bush, select lever boss	2	
16	2702635	bush, select lever shaft	1	
17	2702636	Shaft, gear shift & select	1	
18	2702637	Case, gear shift guide	1	
19	2702638	Spring, low select	1	
20	2702639	Cam, 5th & reverse gear shift	1	
21	2702640	Spring, cam guide return	1	
22	2702641	Lever, shift cable	1	
23	2702646	Lever, select cable	1	
24	2702642	Boot, select lever inside	1	
25	2702643	Boot, select lever outside	1	
26	4120093	Bracket, select lever	1	
27	2702645	Boot, shift & select shift oil	1	
28	2702647	Washer	1	
29	2702648	Spring pin	1	
30	2702649	Spring pin	1	
31	2702650	Spring pin	1	
32	2702651	Spring pin	1	
33	2702652	Spring pin	1	
34	2702653	Seal, oil	1	
35	2702654	E-ring	2	
36	2701827	Bolt	5	
37	2702655	Washer	1	
38	2702494	Nut	1	
39	2702656	Lockwasher	1	

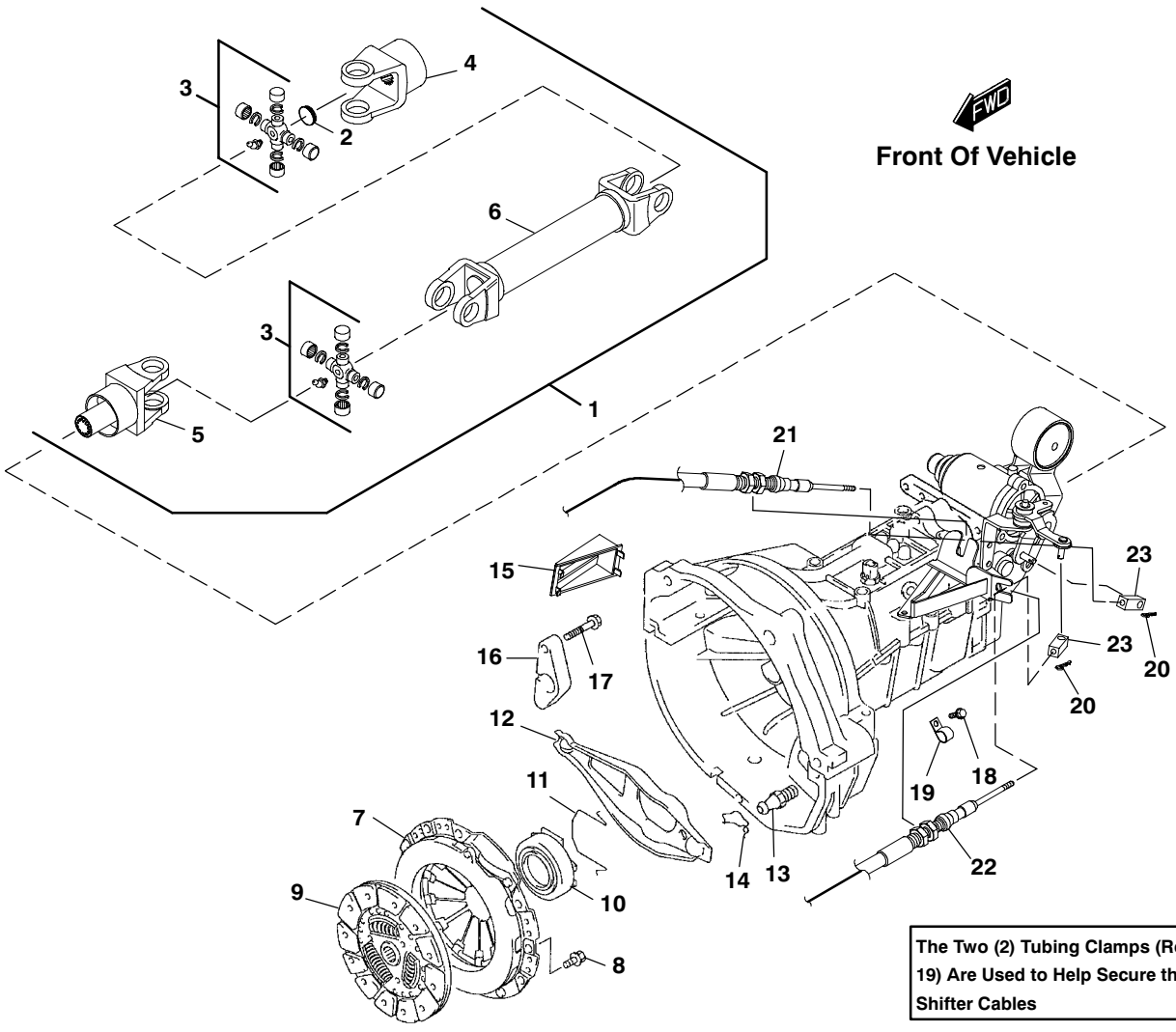
TRANSMISSION (MANUAL) (SUZUKI K6A)



TRANSMISSION (MANUAL) (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	2702556	Shaft, T/M input	1	
2	2702557	Bearing	1	
3	4120085	C-ring	1	
4	2702559	Circlip	1	
5	2702560	Seal, input shaft oil	1	
6	2702561	Bearing	1	
7	4120086	Shaft, transmission main	1	
8	2702563	Bearing	1	
9	2702564	Circlip	1	
10	2702565	Circlip	1	
11	2702566	Bearing	1	
12	2702567	Gear, main shaft, low	1	
13	2702569	Bearing	1	
14	2702570	Gear, main shaft, 2nd	1	
15	2702571	Bearing	1	
16	2702572	Gear, main shaft 3rd	1	
17	2702569	Bearing	1	
18	2702573	Washer, main shaft bearing	2	
19	4120087	C-ring	1	
20	4120088	Gear, main shaft 5th	1	
21	2702576	Bearing	1	
22	2702577	Washer, main shaft, 5th gear	1	
23	2702578	Shaft, transmission counter	1	
24	2702580	Gear, counter shaft drive	1	
25	2702581	Circlip	1	
26	4120089	Gear, countershaft 5th	1	
27	2702583	Bearing, counter shaft center	1	
28	2702566	Bearing	1	
29	2702584	Bearing	1	
30	2702585	Circlip	1	
31	2702586	Circlip	1	
32	2702587	Plug	1	
33	2702595	Hub, low speed sync	1	
34	2702596	Ring, low speed sync	2	
35	4120090	Spring, sync ring low	2	
36	2702598	Circlip	1	
37	2702599	Spring	2	
38	2702600	Key, high speed sync	3	
39	2702601	Hub, high speed sync	1	
40	2702602	Ring, 2nd gear sync	2	
41	2702603	Spring, low speed sync	2	
42	2702600	Key, high speed sync	3	
43	2702604	Circlip, high speed sync hub	1	
44	2702605	Hub, 5th speed sync	1	
45	2702606	Plate, 5th sync hub	1	
46	2702607	Ring, high speed sync	1	
47	2702609	Spring, 5th sync	2	
48	2702610	Circlip, sync hub	1	
49	2702600	Key, high speed sync	3	
50	2702611	Shaft, revers idle gear	1	
51	2702612	Gear, reverse idle	1	
52	2702613	Washer	1	
53	2702614	Plate, reverse gear shaft stop	1	
54	2701921	Bolt	2	
55	2702615	Gear, main shaft reverse	1	
56	2702616	Bearing	1	
57	2702617	Ring, speedometer exciter	1	
58	2702581	Circlip	1	

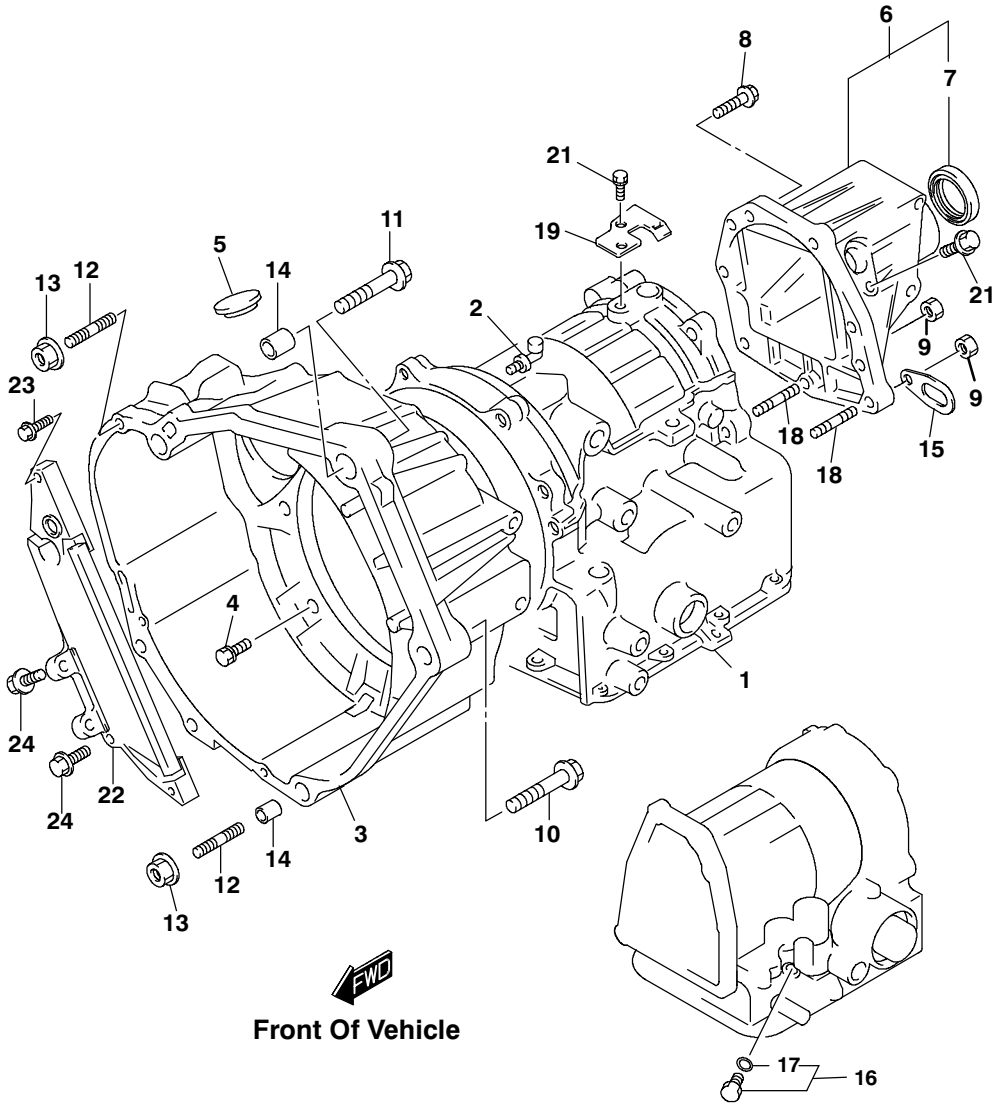
CLUTCH and DRIVESHAFT (SUZUKI K6A)



CLUTCH and DRIVESHAFT (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	2701321.7	Driveshaft, complete	1	
2	548482	• Plug, expansion	3	
3	826284	• Cross, u-joint	2	
4	826285	• Yoke, universal	1	
5	894192	• Yoke, front	1	
6	895126	• Shaft, drive	1	
7	4117900	Cover, clutch	1	
8	2702547	Bolt, 8 x 16	6	
9	2702548	Disc, clutch	1	
10	2702549	Bearing, clutch release	1	
11	2702550	Clip, clutch release bearing	1	
12	2702551	Fork, clutch release	1	
13	2702552	Support, clutch release fork	1	
14	2702553	Clip, clutch release fork	1	
15	2702554	Cap, transmission case	1	
16	2702555	Bracket, clutch cable	1	
17	2702470	Bolt	1	
18	800843	Screw, #10-14 taptite (plastic)	2	
19	809092	Clamp, tube/wire	2	
20	821164	Pin, hair .25 x 1.12 x .06	2	
21	2701273	Cable, shifter 97" (2464 mm)	1	
22	2701273	Cable, shifter 97" (2464 mm)	1	
23	2701371	Connector, shifter lever	2	

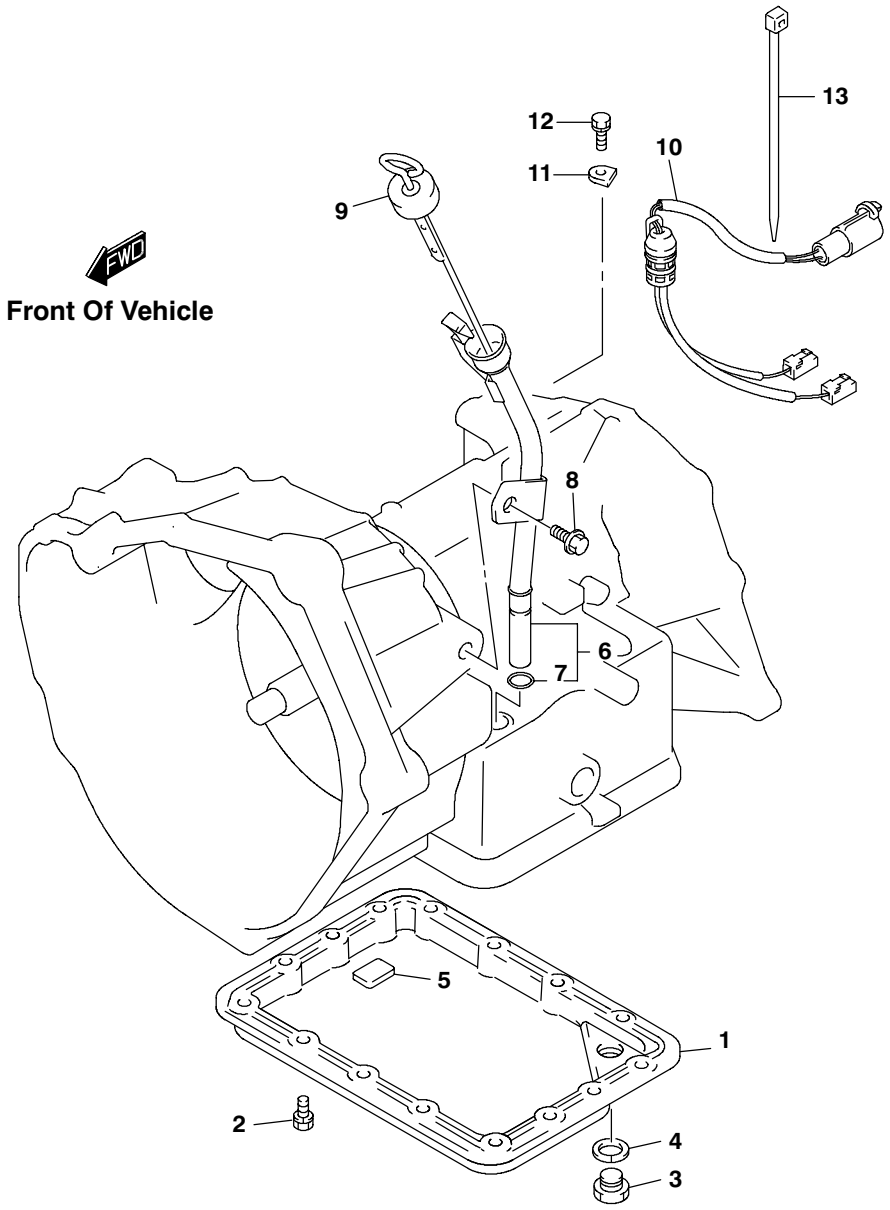
AUTOMATIC TRANSMISSION (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	2702750	Case, transmission	1
2	2702751	•Breather	1
3	2702752	Housing, torque converter	1
4	2702753	Bolt	6
5	2702662	Cap	1
6	2702754	Housing, extension	1
7	2702683	•Seal, extension case	1
8	2702755	Bolt	5
9	2702494	Nut	2
10	2702756	Bolt	1
11	2702686	Bolt	1
12	2702688	Stud	2
13	2702689	Nut	2
14	2702690	Collar	2
15	2702759	Hook, engine	1
16	2702760	Plug, booster	1
17	2702761	•O-ring	1
18	2702762	Bolt, transmission case	2
19	2702763	Bracket, connector clamp	1
20	4120102	Bolt, connector clamp bracket	1
21	2702764	Bolt	1
22	24790-67H10	Engine & t/m stiffener	1
23	2702519	Bolt	2
24	2702470	Bolt	2

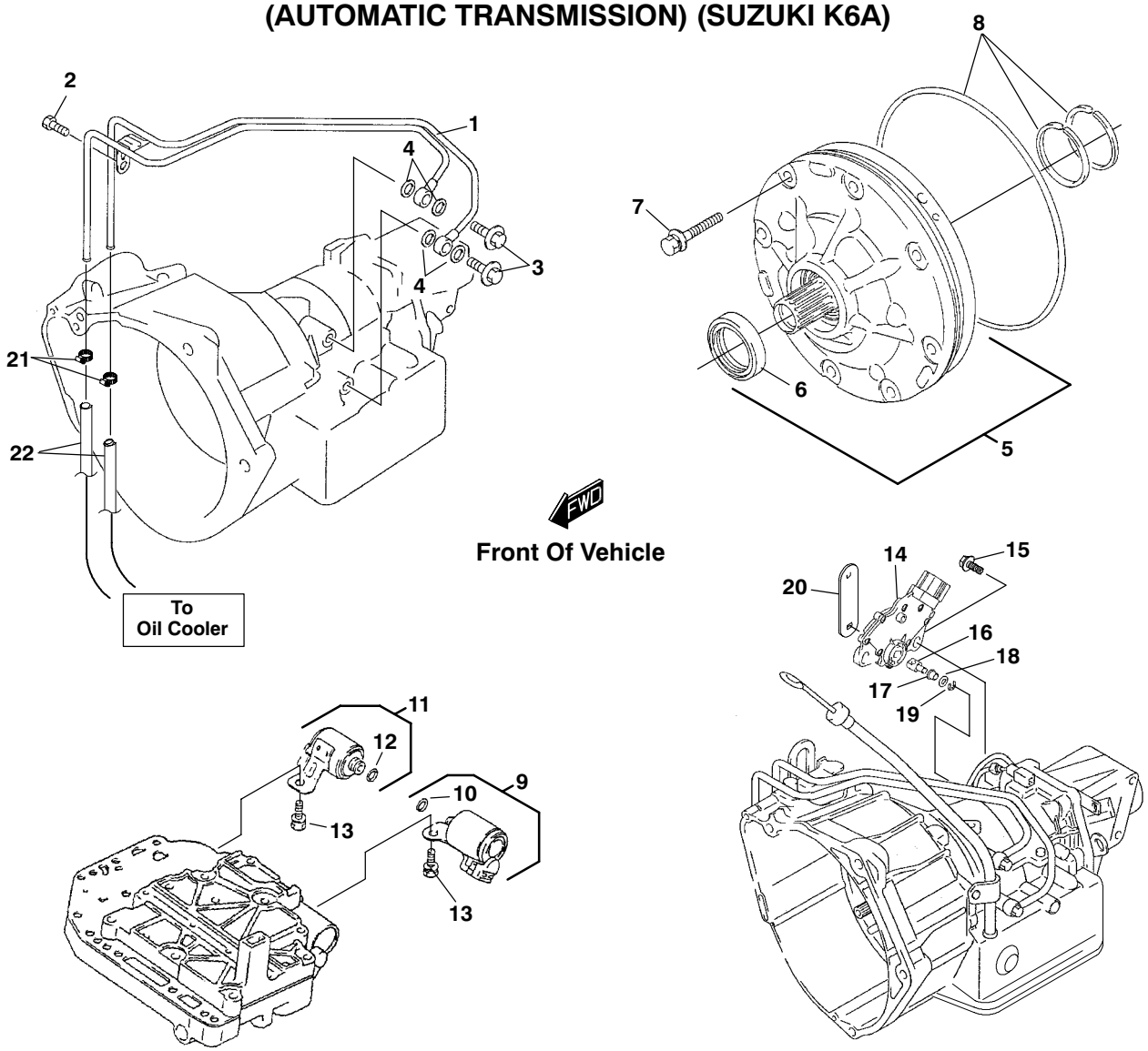
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

AUTOMATIC TRANSMISSION PAN, DIPSTICK and GASKETS (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	2702806	Pan, transmission oil	1
2	2702807	Bolt	15
3	2702808	Plug, transmission oil drain	1
4	2702809	Gasket, plug	1
5	2702810	Magneto, oil cleaner	1
6	2702812	Tube, oil filler (dipstick)	1
7	2702813	O-ring	1
8	2702475	Bolt	1
9	4120110	Oil level gauge	1
10	2702816	Solenoid wire harness	1
11	2702817	Solenoid wire harness hold plate	1
12	2701921	Bolt	1
13	2702818	Solenoid wire harness clamp	1

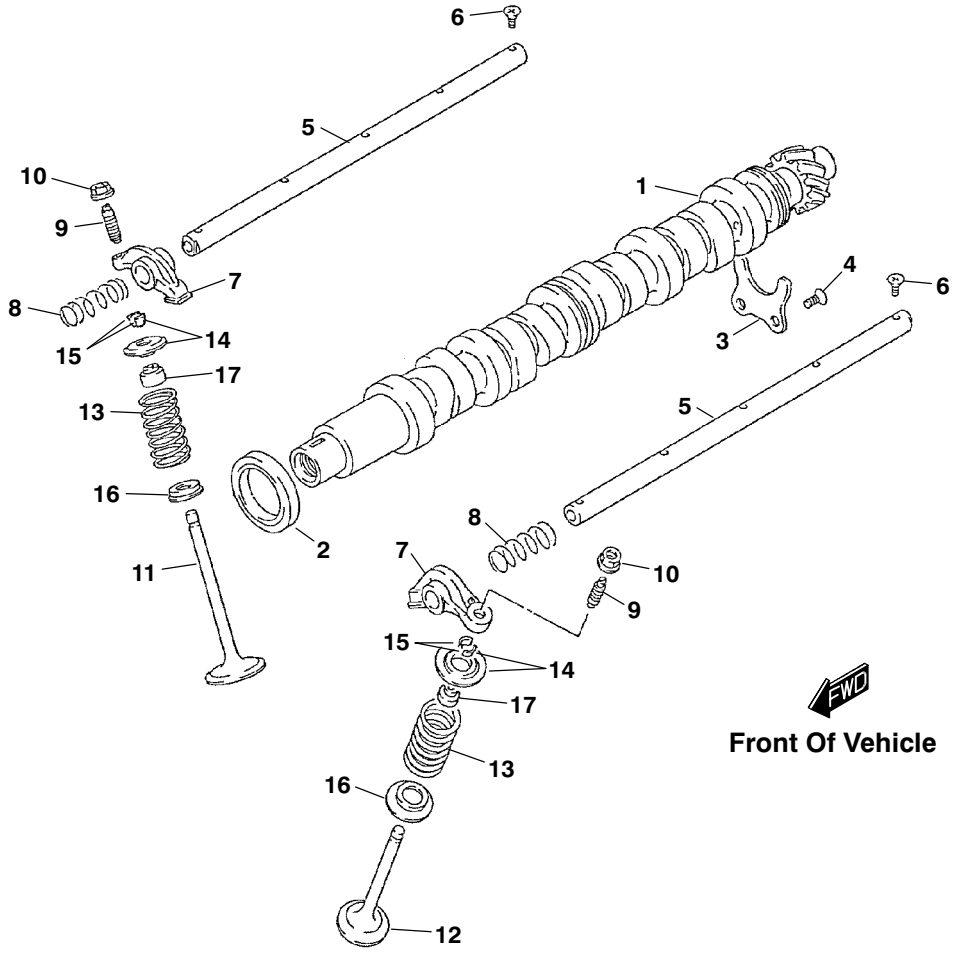
TRANSMISSION TUBES, OIL PUMP, SOLENOIDS and SHIFT SWITCH (AUTOMATIC TRANSMISSION) (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	2702843	Pipe assembly, oil	1
2	2702849	Bolt	1
3	2702847	Union bolt	2
4	2702845	Gasket	4
5	2702765	Pump, oil	1
6	2702766	•Seal, oil pump	1
7	2702767	Bolt, oil pump	8
8	2702768	Ring set, oil pump seal	1
9	2702822	Solenoid, direct clutch	1
10	2702823	•O-ring	1
11	2702824	Solenoid, 2nd brake	1
12	2702823	•O-ring	1
13	2702764	Bolt	2
14	2702885	Switch, shift	1
15	2702886	Bolt	1
16	2702881	Joint, transmission shifter	2
17	2702882	Bushing	1
18	2702883	Washer	1
19	2702884	E-ring	1
20	842740	Lever, shifter	1
21	825624	Clamp, hose	2
22	826590	Hose, 5/16 i.d.	As Req'd.

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

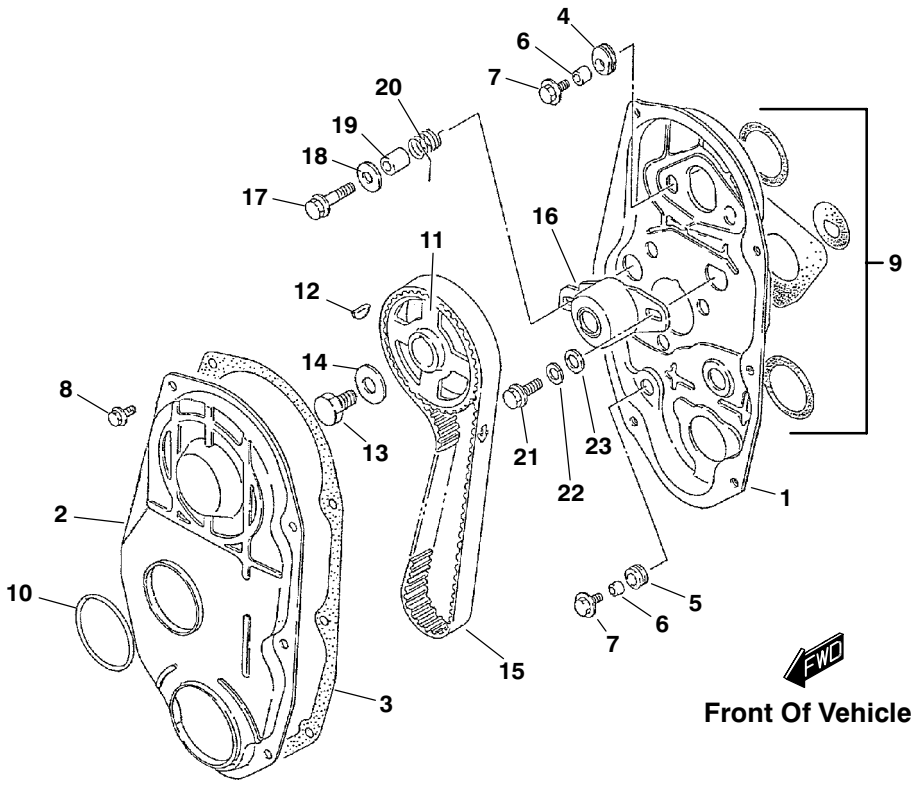
CAMSHAFT & COMPONENTS
(SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	12710-77314	Camshaft	1	10	09159-07002	Nut	8
2	09283-32040	Seal, camshaft	1	11	12911-78101	Valve, inlet	4
3	12749-73002	Plate, cam shaft thrust	1	12	12915-84010	Valve, exhaust	4
4	02122-06123	Screw	2	13	12921-73002	Spring, valve	8
5	12860-73004	Shaft, valve rocker	2	14	12900-82810	Retainer, valve spring	8
6	02122-06163	Screw	10	15	12932-82000	•Cotter, valve	16
7	12841-77300	Arm, valve rocker	8	16	12933-73000	Seat, valve spring	8
8	12891-51G00	Spring, rocker arm	8	17	09289-07007	Seal, oil	8
9	12848-73010	Screw, valve adjusting	8				

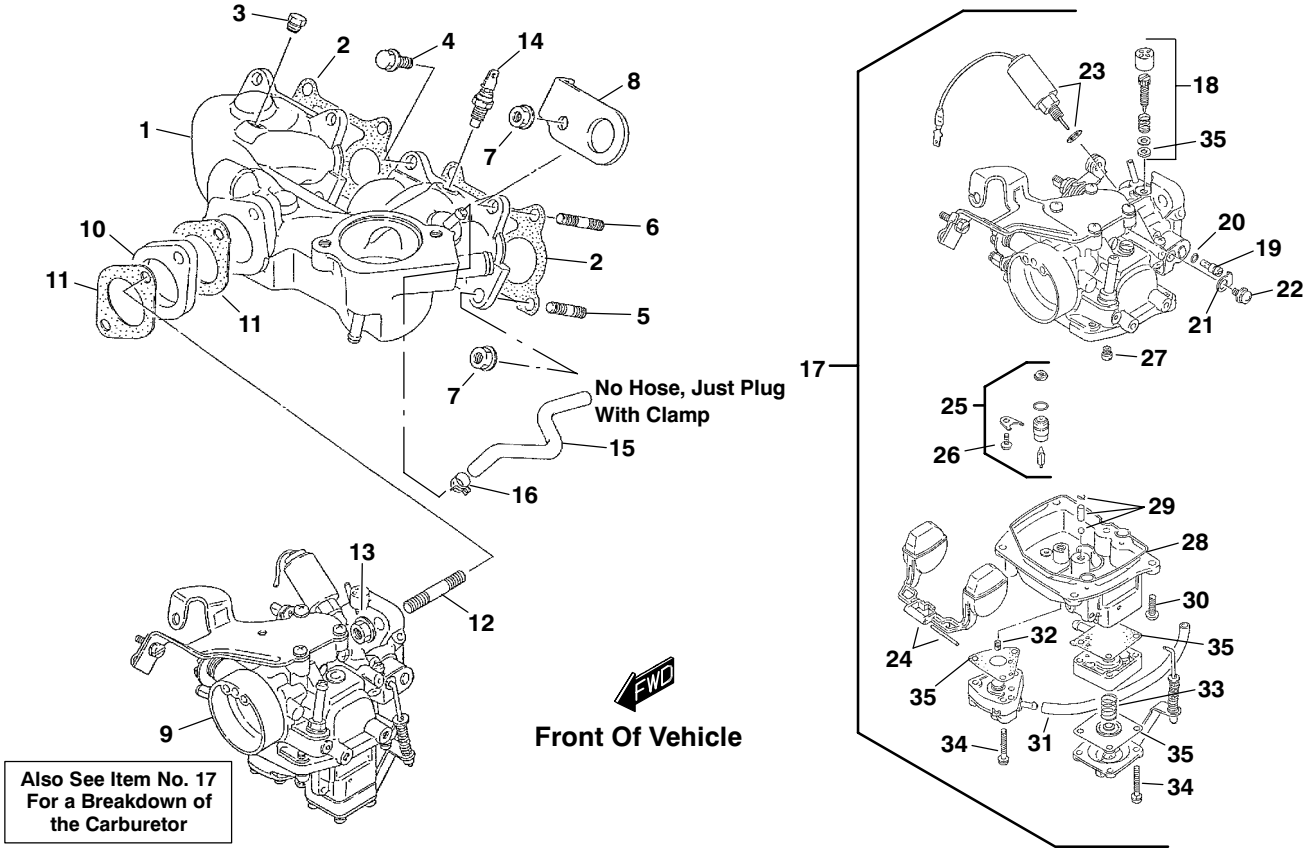
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

TIMING BELT & TIMING COVER
(SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	11360-78100	Cover, inside	1
2	11391-78113	Cover, outside	1
3	11399-73010	Gasket, cover	1
4	11398-73000	Grommet	2
5	09308-10004	Grommet	2
6	09180-06106	Spacer (6 x 10 x 17)	4
7	09136-06139	Bolt (6 x 16)	4
8	02162-06103	Bolt	6
9	11480-78110	Seal set, inside cover	1
10	11484-73000	Grommet, outside	1
11	12741-78403	Pulley, timing belt	1
12	08341-31059	Key	1
13	01500-12253	Bolt	1
14	09160-12094	Washer (12.5 x 32 x 4.5)	1
15	12761-78400	Belt, timing	1
16	12810-53A00	Tensioner, timing belt	1
17	01550-08403	Bolt	1
18	09160-08133	Washer (8.5 x 26 x 1.6)	1
19	09180-08111	Spacer (8.1 x 16 x 17)	1
20	12821-78100	Spring, tensioner	1
21	09103-08152	Bolt (8 x 25)	1
22	08321-01083	Lockwasher	1
23	09160-08126	Washer (8.5 x 20 x2.6)	1

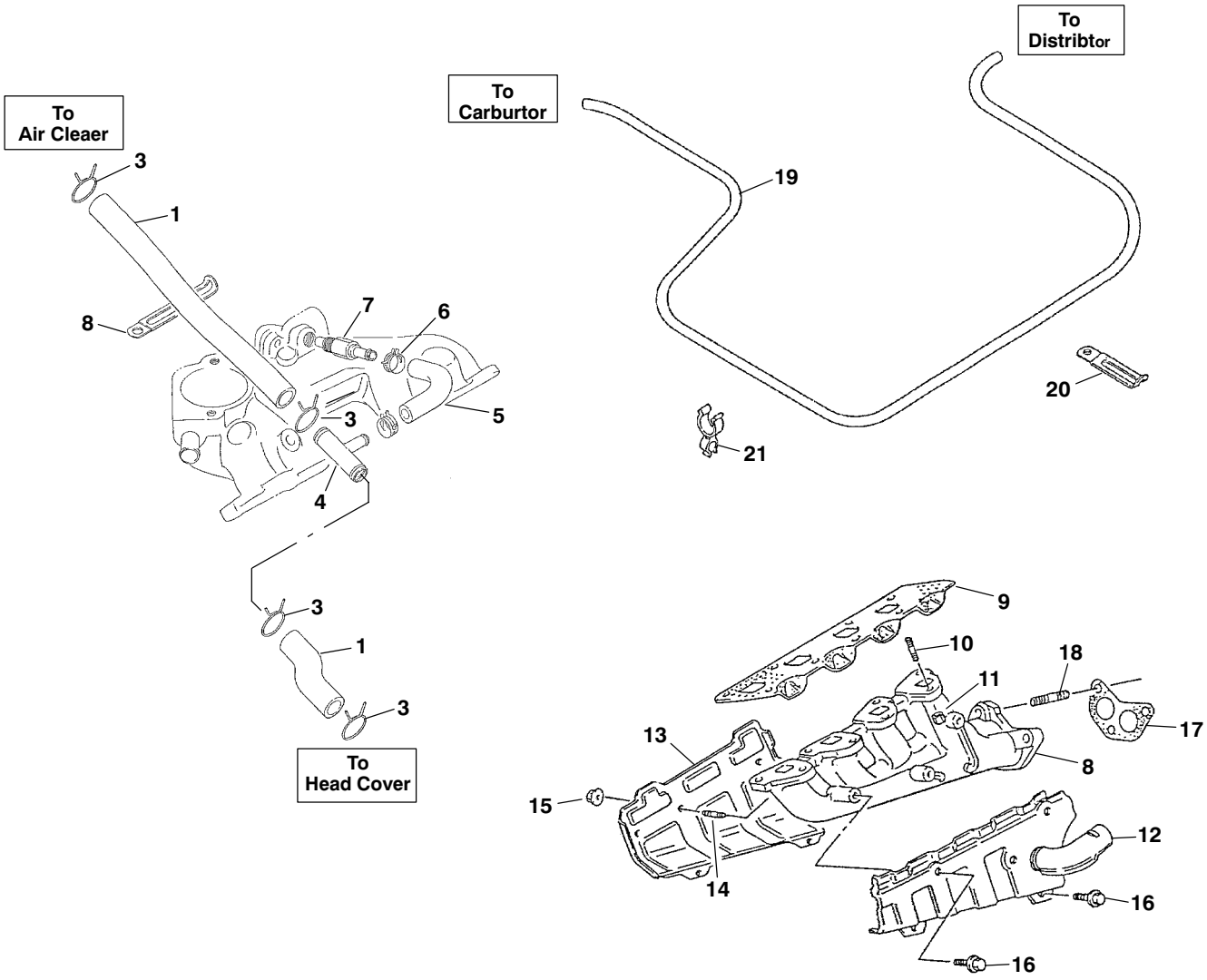
CARBURETOR & INTAKE MANIFOLD
(SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	13110-85X57	Manifold, intake	1
2	13119-73001-H17	Gasket, intake mnfld.	2
3	09246-04005	Plug, boost	1
4	01550-08203	Bolt	3
5	01411-08203	Stud bolt	4
6	01411-08253	Stud bolt	1
7	08316-10083	Nut	5
8	11851-62B00	Hook, engine	1
9	2700621	Carburetor, complete	1
10	13121-80000	Insulator, carburetor	1
11	13125-80000-H17	Gasket, carburetor	2
12	09108-08169	Stud bolt	2
13	08316-10083	Nut	2
14	34850-50A00	Gauge, water temp.	1
15	51030-85051	Hose, brake vacuum No. 3	1
16	09401-15404	Clamp	1
17	2700621	Carburetor, complete	1
18	13270-855T0	•Screw set, idle adjust	1
19	09492-47006	•Jet, pilot (#47.5)	1
20	13278-45010	•O-ring	1
21	13398-78110	•Plate	1
22	02112-75103	•Screw	1
23	13260-797T0	•Solenoid set	1
24	13250-852T0	•Float set	1
25	13370-60CT0	•Valve set, needle	1
26	02112-04087	•Screw	1
27	09491-21024	•Jet, main (#108.8)	1
28	13251-79110	•O-ring	1
29	13240-852T0	•Weight set, pump	1
30	02142-05163	•Screw	5
31	09355-35754	•Hose	As Req'd.
32	09492-65005	•Jet, enrichment (#65)	1
33	13494-78420	•Spring	1
34	02112-34253	•Screw	1
35	13380-793T0	•Gasket set	1

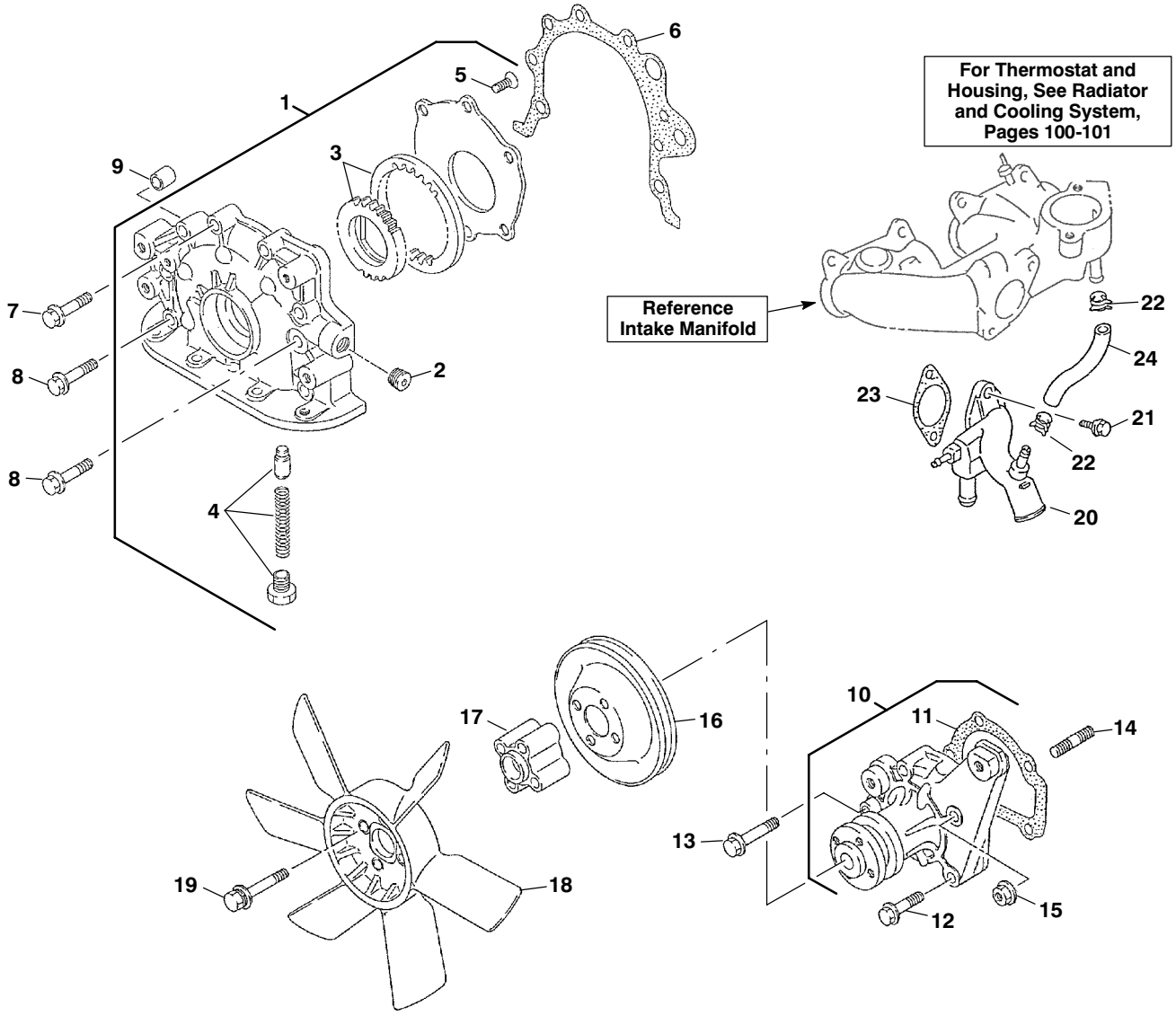
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

PCV VALVE, EMISSIONS & EXHAUST MANIFOLD (SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	09355-13207-600	Hose	As Req'd.
2	09401-20301	Clip	4
3	09367-14002	Union, 3-way	1
4	11193-85000	Hose, PCV	1
5	09401-13414	Clip	2
6	18118-80010	Valve, PCV	1
7	09404-08420	Clamp, breather hose	1
8	14111-85210	Manifold, exhaust	1
9	14140-85200	Gasket, exhaust manifold	1
10	01411-08253	Stud bolt	8
11	08310-00083	Nut	8
12	14120-85220	Cover, upper	1
13	14125-85201	Cover, lower	1
14	01411-06123	Stud bolt	3
15	08361-35063	Nut	3
16	09103-06168	Bolt (6 x 10)	5
17	14181-85200	Gasket, exhaust pipe	1
18	01411-10253	Stud bolt	3
19	09355-35754-600	Hose	As Req'd.
20	09404-08206	Clamp	1
21	09408-00060	Clamp	1

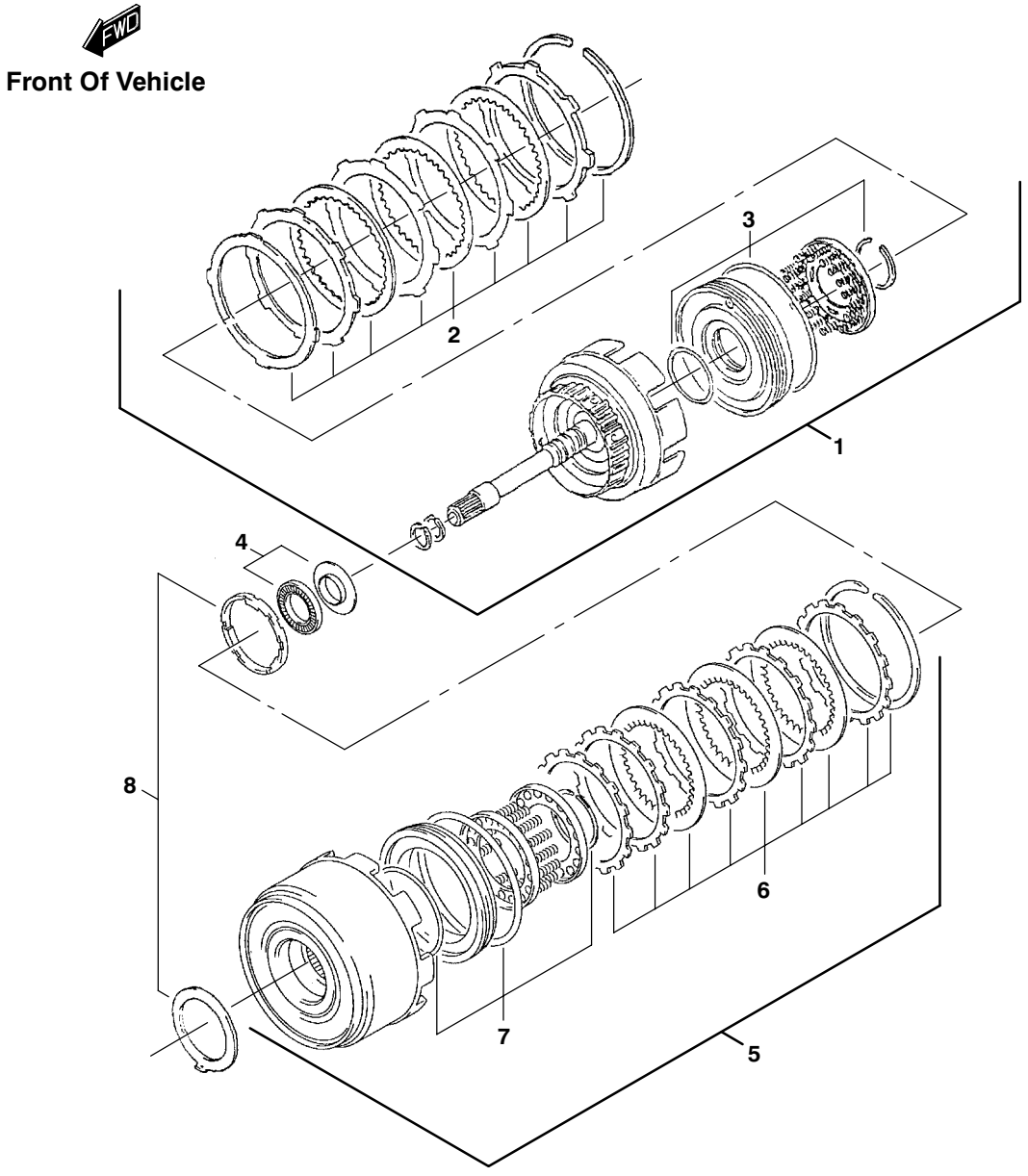
OIL PUMP and WATER PUMP
(SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	16100-73004	Pump, oil	1
2	09246-06002	•Plug, oil gallery	1
3	16130-73000	•Rotor set, oil pump	1
4	16150-73000	•Valve set, oil pump relief	1
5	02122-06123	•Screw	6
6	16119-50E00	Gasket, oil pump case	1
7	01550-06303	Bolt	1
8	01550-06353	Bolt	7
9	04211-09109	Pin	2
10	17400-78821	Pump set, water	1
11	17431-73001	•Gasket, water pump	1
12	01550-06303	Bolt	2
13	01550-06403	Bolt	1
14	01411-06253	Stud bolt	2
15	08316-10063	Nut	2
16	17511-73001	Pulley, water pump	1
17	17131-80000	Hub, cooling fan	1
18	17110-77300	Fan, cooling	1
19	01580-06503	Bolt	4
20	17550-77X50	Pipe, water inlet	1
21	01550-06203	Bolt	2
22	09401-11415	Clip	2
23	17559-73000-H17	Gasket, inlet pipe	1
24	09352-70121-00B	Hose, water bypass	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

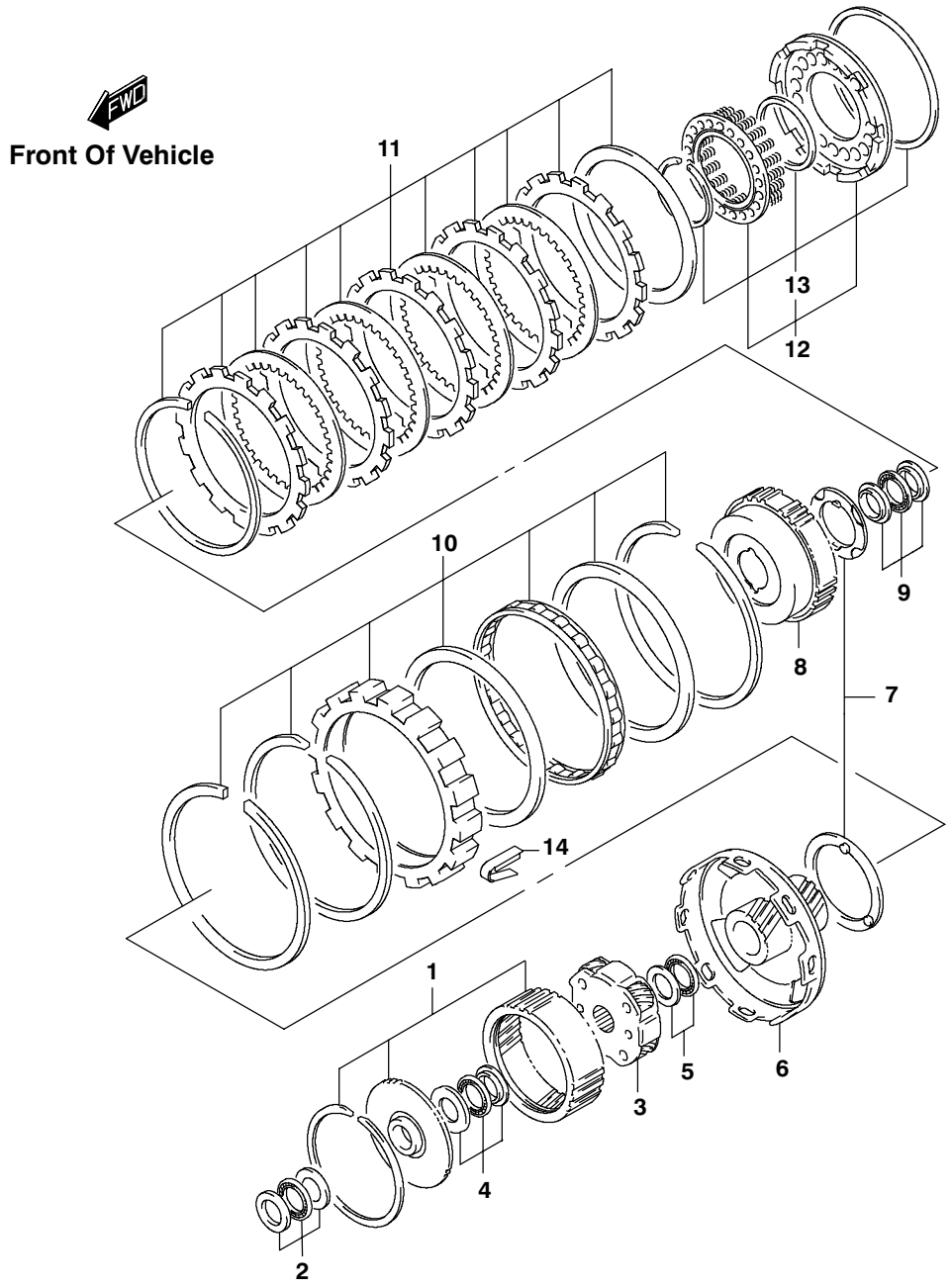
TRANSMISSION INPUT SHAFT and CLUTCH ASSEMBLY (AUTOMATIC TRANSMISSION) (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702769	Shaft set, input	1	5	2702773	Clutch assembly, direct	1
2	2702770	•Plate set, forward clutch	1	6	2702774	•Plate set, direct clutch	1
3	2702771	•O-ring set, forward clutch	1	7	2702775	•O-ring set, direct clutch	1
4	2702772	Bearing set, thrust (No. 1)	1	8	2702776	Washer set, direct clutch	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

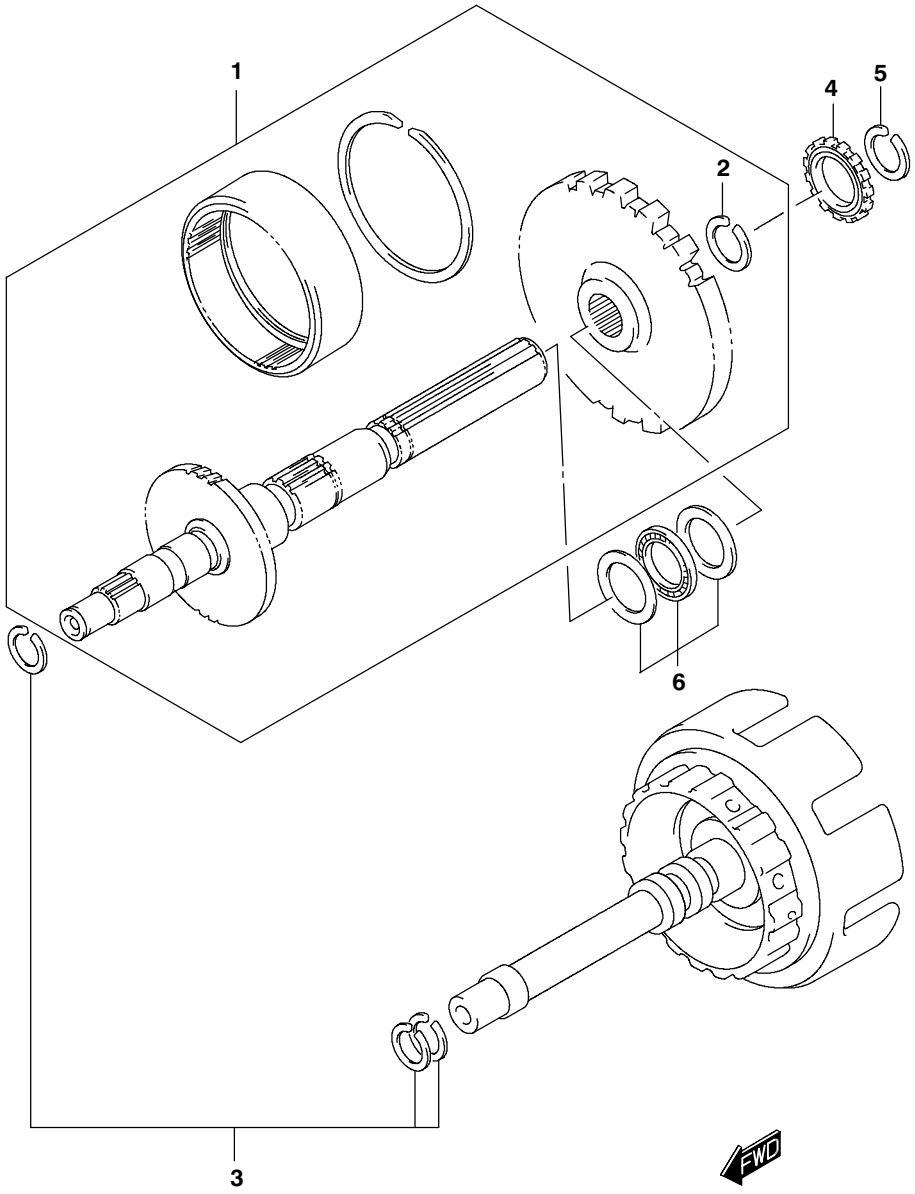
TRANSMISSION PLANETARY GEARS
(AUTOMATIC TRANSMISSION) (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	2702777	Gear, front planetary ring	1
2	2702778	Bearing set, #3 thrust	1
3	2702779	Gear, front planetary	1
4	2702780	Bearing set, #4 thrust	1
5	2702781	Bearing set, #5 thrust	1
6	2702782	Gear, planetary sun	1
7	2702783	Washer set, thrust	1
8	2702784	Gear, rear planetary	1
9	2702785	Bearing set, #1 thrust	1
10	4120107	Clutch set, one way	1
11	4119614	Plate set, 1st/reverse	1
12	2702788	Piston set, 1st/reverse	1
13	2702789	•O-ring set, 1st/reverse	1
14	4120108	Retainer, outer race	1

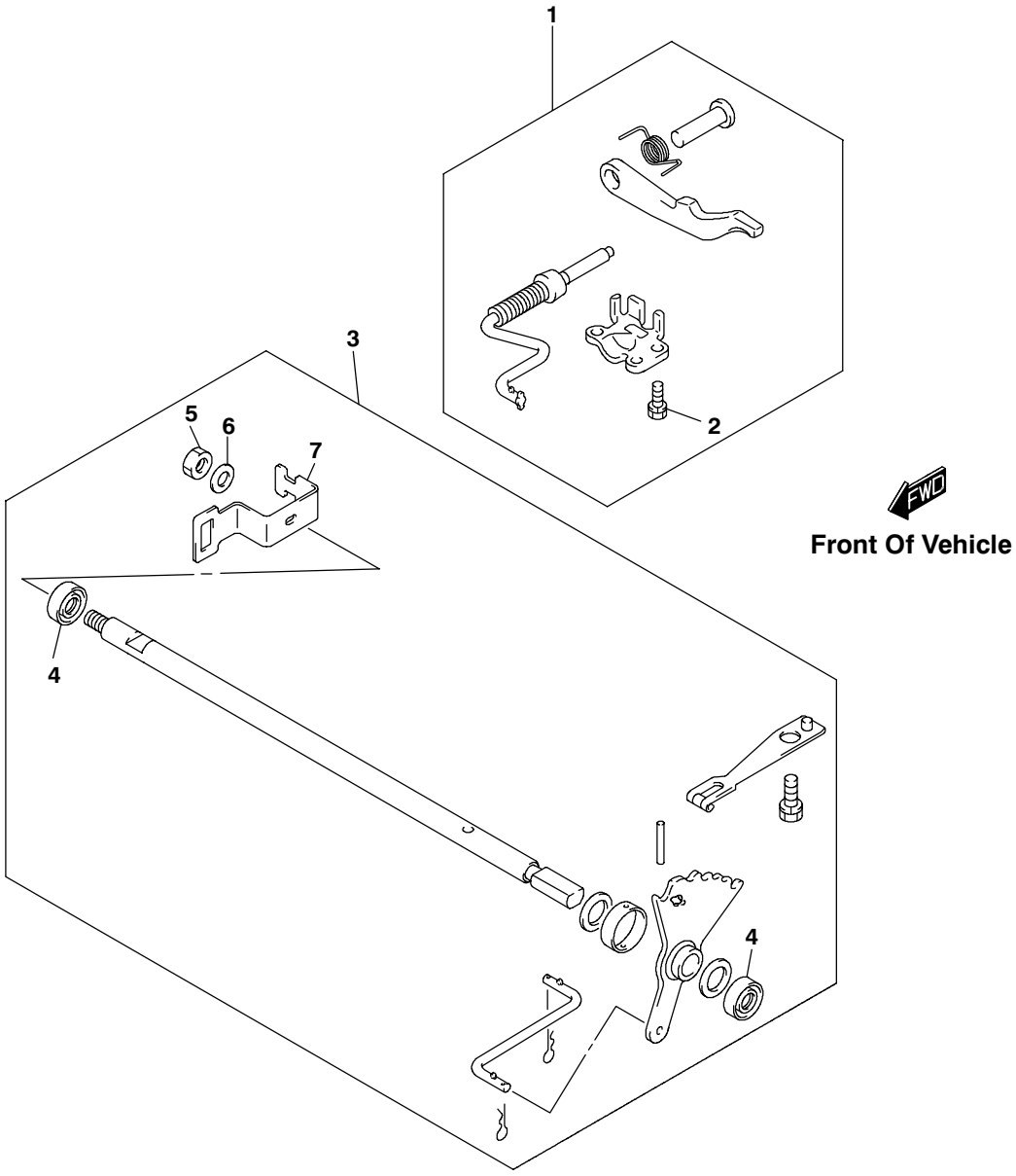
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

OUTPUT SHAFT
(AUTOMATIC TRANSMISSION) (SUZUKI K6A)



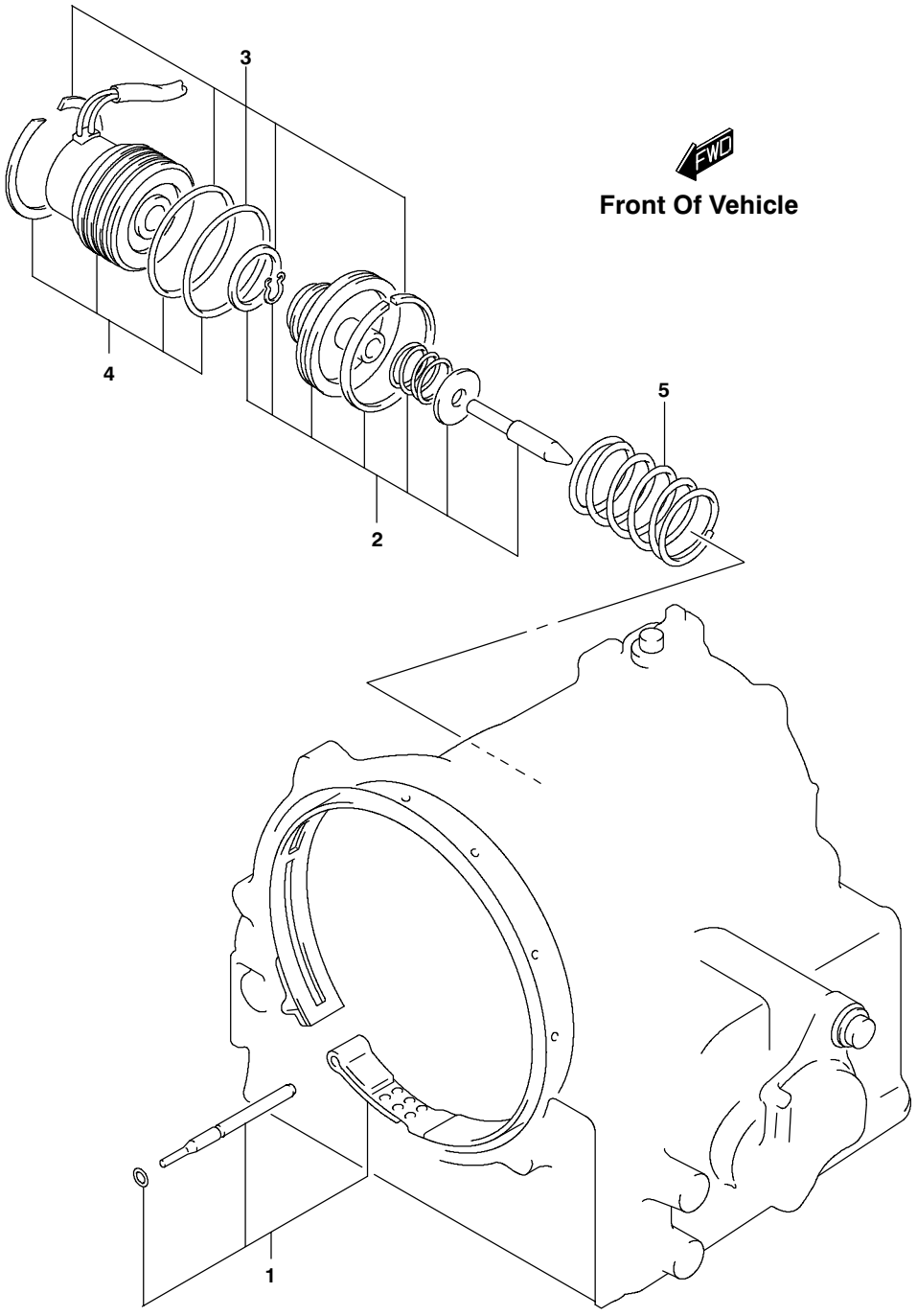
Ref. No.	Part No.	Description	No. Req'd
1	2702790	Output shaft	1
2	2702791	Ring, snap	1
3	2702792	Ring set, shaft seal	1
4	2702793	Ring, speedometer exciter	1
5	2702794	Circlip, exciter ring	1
6	2702795	Bearing set, #6 thrust	1

PARKING BRAKE
(AUTOMATIC TRANSMISSION) (SUZUKI K6A)



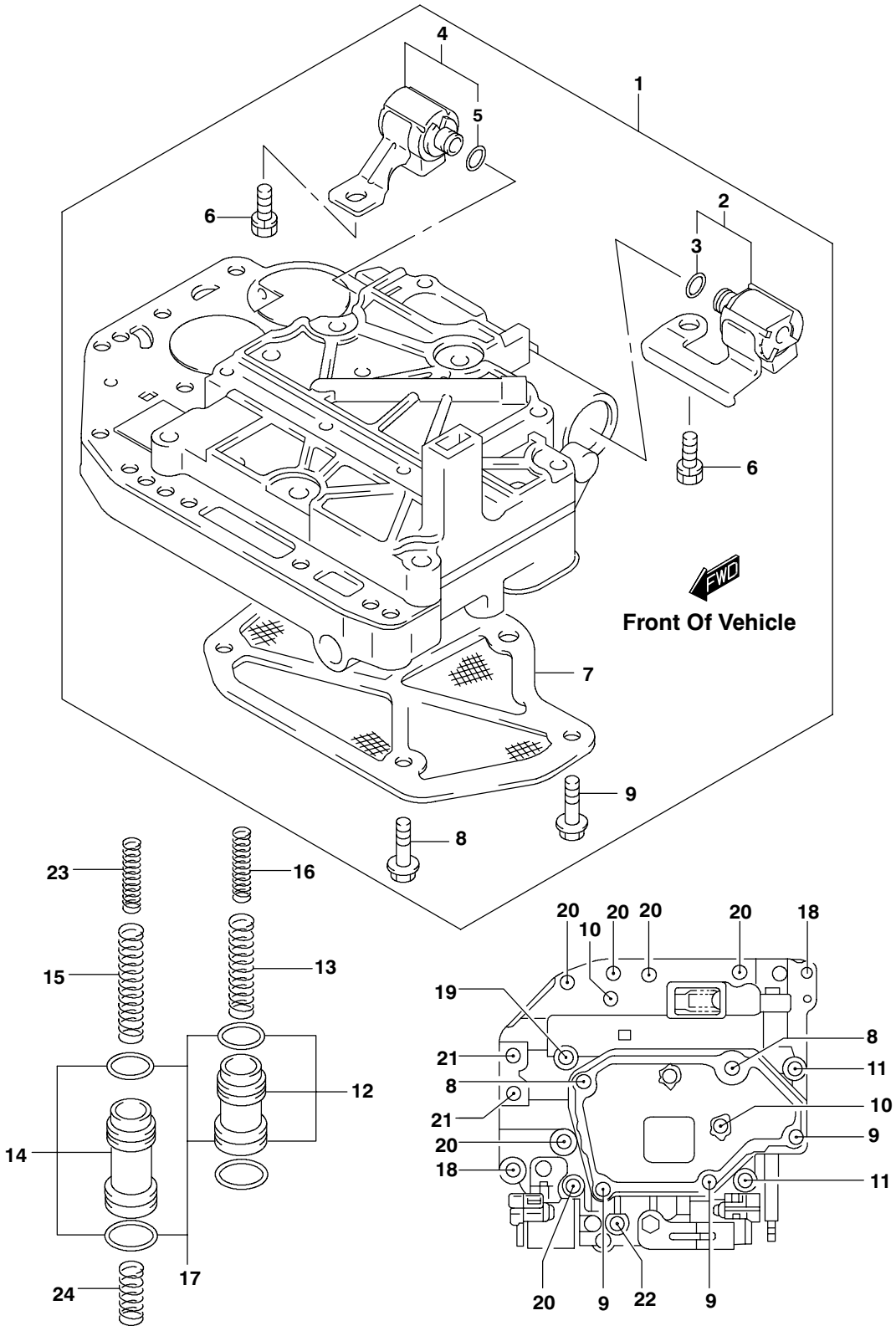
Ref. No.	Part No.	Description	No. Req'd
1	2702796	Parking pawl set	1
2	2701921	Bolt	3
3	2702797	Shaft set, manual lever	1
4	2702798	Seal, shift shaft oil	2
5	2702494	Nut	1
6	2702799	Washer, manual shift shaft	1
7	25951-67H10	Lever, manual shift	1

BRAKE BAND
(AUTOMATIC TRANSMISSION) (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	2702800	Band set, 2nd brake	1
2	4120109	Piston AY, 2nd brake	1
3	2702803	Sealing set, 2nd brake	1
4	2702804	Cover set, 2nd brake piston	1
5	2702805	Spring, 2nd brake piston	1

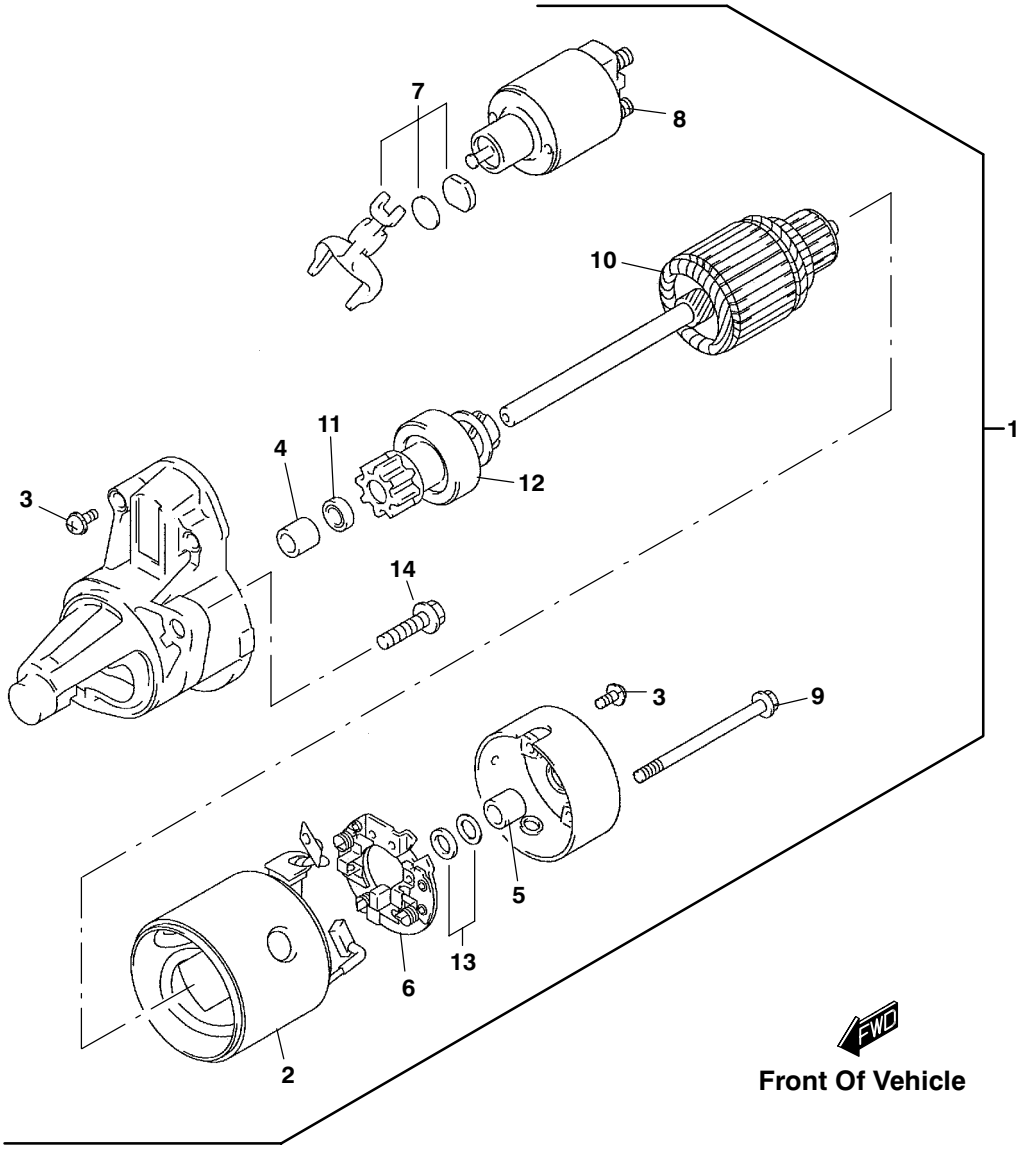
TRANSMISSION VALVE
(AUTOMATIC TRANSMISSION) (SUZUKI K6A)



TRANSMISSION VALVE
(AUTOMATIC TRANSMISSION) (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd
1	26500-60HH2	Body assembly transmission valve	1
2	2702822	Solenoid, direct clutch	1
3	2702823	O-ring	1
4	2702824	Solenoid assembly, 2nd brake position	1
5	2702823	O-ring	1
6	2702764	Bolt, solenoid	2
7	2702825	Strainer, transmission oil	1
8	2702826	Bolt, valve body, No. 5	2
9	2702827	Bolt, valve body, No. 6	3
10	2702839	Bolt, valve body, No. 1	2
11	2702840	Bolt, valve body, No. 2	2
12	26531-67HT0	Piston set, C1 ACC	1
13	26563-67H10	Spring, ACC 2nd brake position	1
14	2702830	Piston set, B1 ACC	1
15	2702831	Spring, ACC 2nd brake position	1
16	26563-67H30	Spring, ACC forward piston	1
17	26533-67HT0	Seal ring set, accumulator	1
18	2702834	Bolt, valve body, No. 2	2
19	2702835	Bolt, valve body, No. 3	1
20	2702836	Bolt, valve body, No. 1	6
21	2702837	Bolt, valve body, No. 4	2
22	2702838	Bolt, valve body, No. 6	1
23	2702841	Spring, ACC 2nd brake position No. 2	1
24	2702842	Spring, ACC 2nd brake position No. 3	1

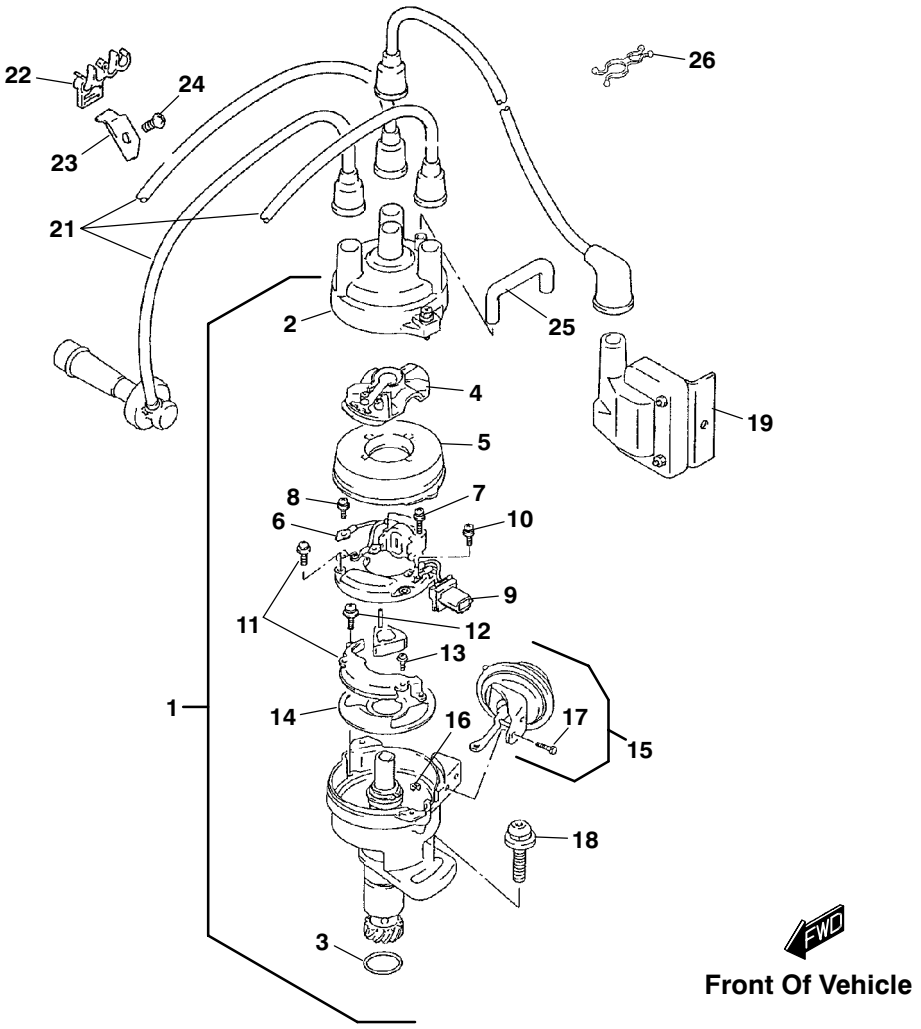
STARTER
(AUTOMATIC TRANSMISSION) (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
1	2702906	Motor assembly, starting	1	8	2702900	•Switch assembly	1
2	2702907	•Yoke assembly	1	9	2702908	•Bolt	2
3	2702895	•Screw assembly	1	10	2702909	•Armature	1
4	2702896	•Bushing	1	11	2702903	•Ring assembly	1
5	2702897	•Bushing	1	12	2702904	•Clutch assembly	1
6	2702898	•Holder assembly, brush	1	13	2702905	•Washer	1
7	2702899	•Lever assembly	1	14	2702470	•Bolt	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

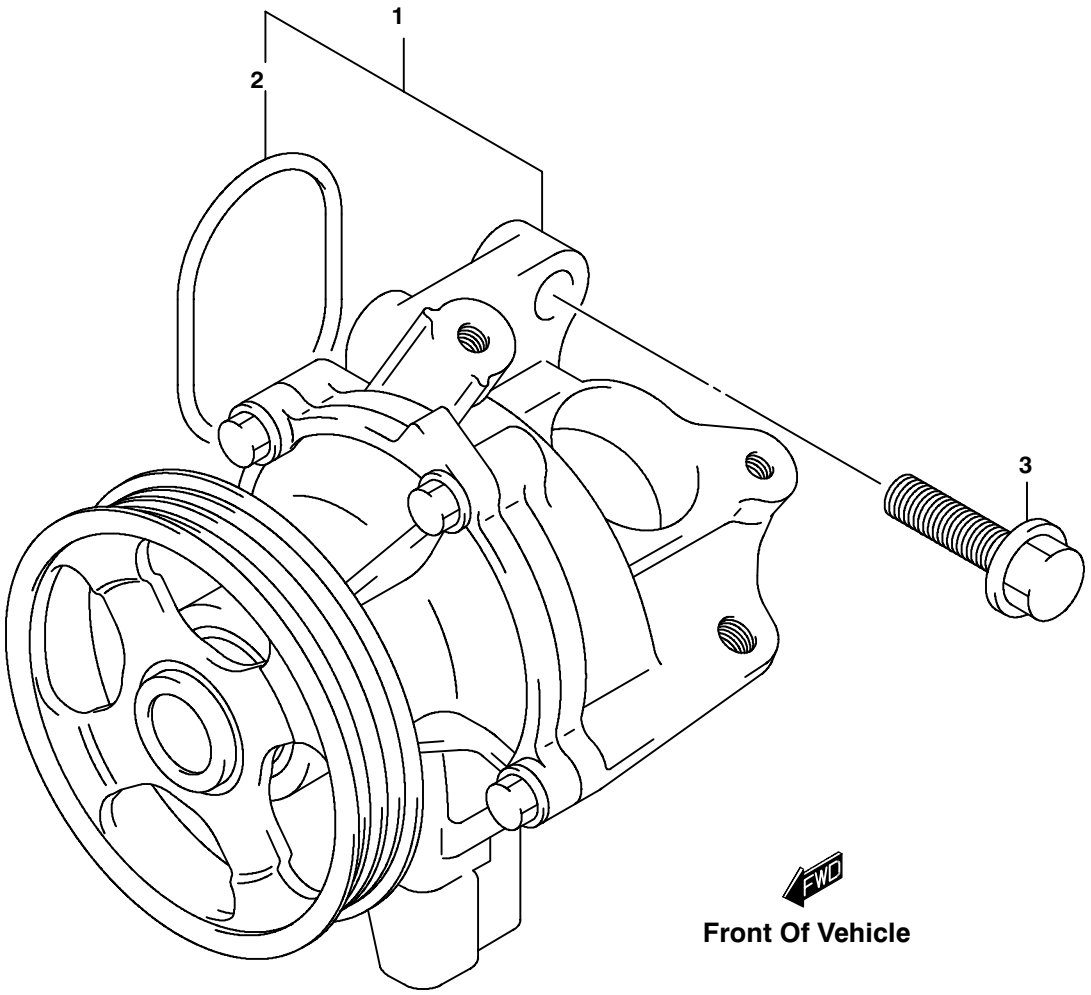
DISTRIBUTOR (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	33100-51F11	Distributor, complete	1
2	33321-50F50	•Cap, distributor	1
3	33278-85060	•O-ring	1
4	33310-51F10	•Rotor	1
5	33326-51F10	•Shield, dust	1
6	33140-64B70	•Coil, pick-up	1
7	33151-86240	•Screw	2
8	33152-64B70	•Screw	2
9	33375-62D10	•Connector	1
10	33152-64B70	•Screw	2
11	33370-76D20	•Igniter assembly	1
12	02112-34103	••Screw	2
13	33187-50F10	••Screw	2
14	33180-62D10	•Breaker assembly	1
15	33230-51F10	•Controller, vacuum	1
16	08332-11033	••E-ring	1
17	33151-60B40	••Screw	2
18	09138-08003	Screw	1
19	33410-50F20	Coil, ignition	1
20	33710-60C21	Cord, high tension (No. 1)	1
21	33705-60C11	Cord set, high tension	1
22	33884-86510	Clamp	1
23	33881-60C11	Bracket	1
24	02112-06083	Screw	1
25	33460-50F30	Hose, distributor cap	1
26	09408-00013	Clip	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

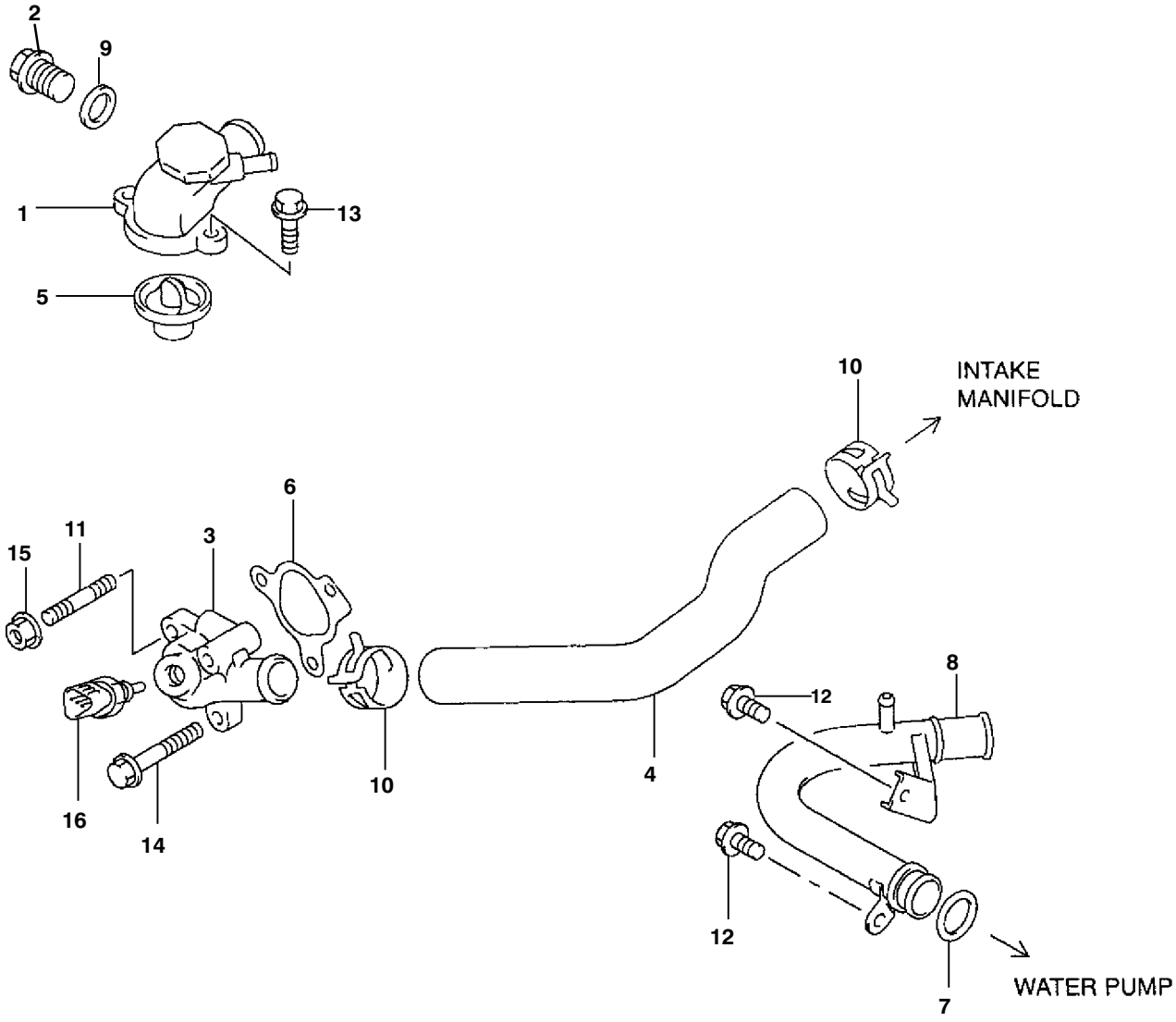
WATER PUMP (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120074	Pump, water	1	
2	4119965	•O-ring	1	
3	2702470	Bolt	4	

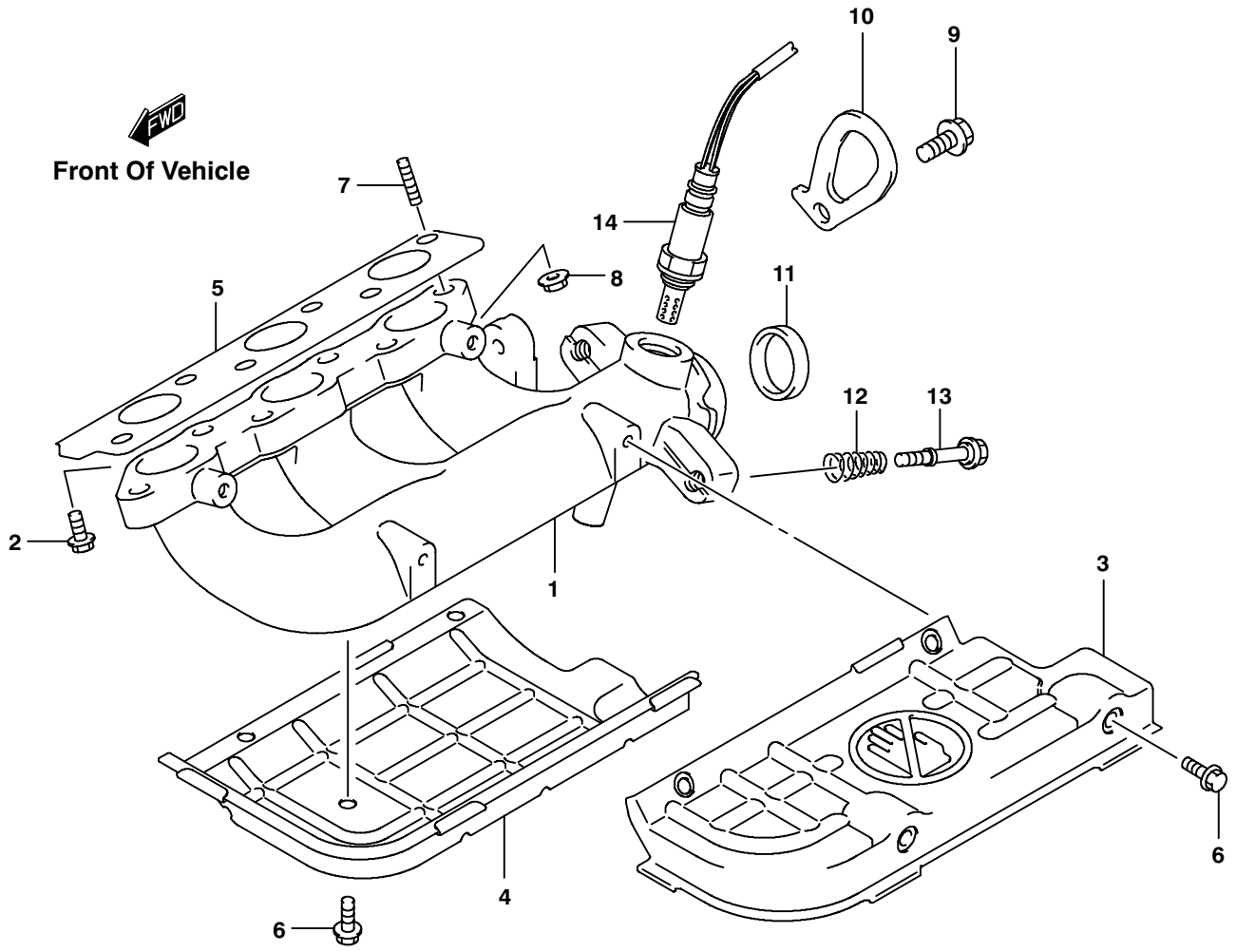
• INDENTED PARTS NAME INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

WATER HOSE (SUZUKI K6A)



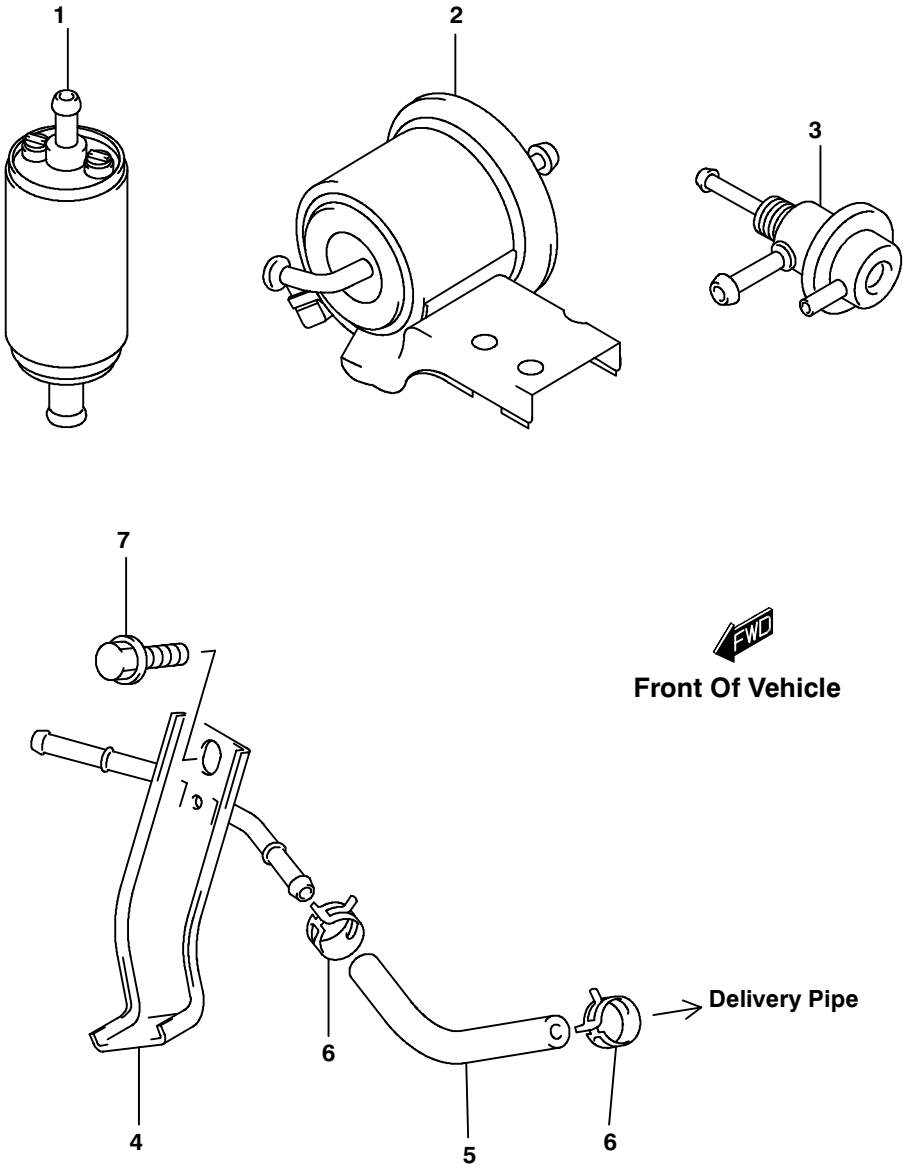
Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120076	Cap, water thermostat	1	
2	2702540	Union, air vent	1	
3	4120077	Cap, water outlet	1	
4	4120078	Hose, water engine outlet	1	
5	4120079	Thermostat, water	1	
6	4119967	Gasket, thermo case	1	
7	4119609	O-ring, water inlet pipe	1	
8	4120081	Pipe, water inlet	1	
9	2702541	Gasket, air vent union	1	
10	4120082	Clip, water hose	2	
11	4120083	Stud bolt, outlet cap	2	
12	2702486	Bolt, water inlet pipe	2	
13	2702469	Bolt, thermostat cap	2	
14	4120084	Bolt, water outlet cap	1	
15	2703002	Nut, water outlet cap	2	
16	2702481	Sensor, water temperature	1	

EXHAUST MANIFOLD (SUZUKI K6A)



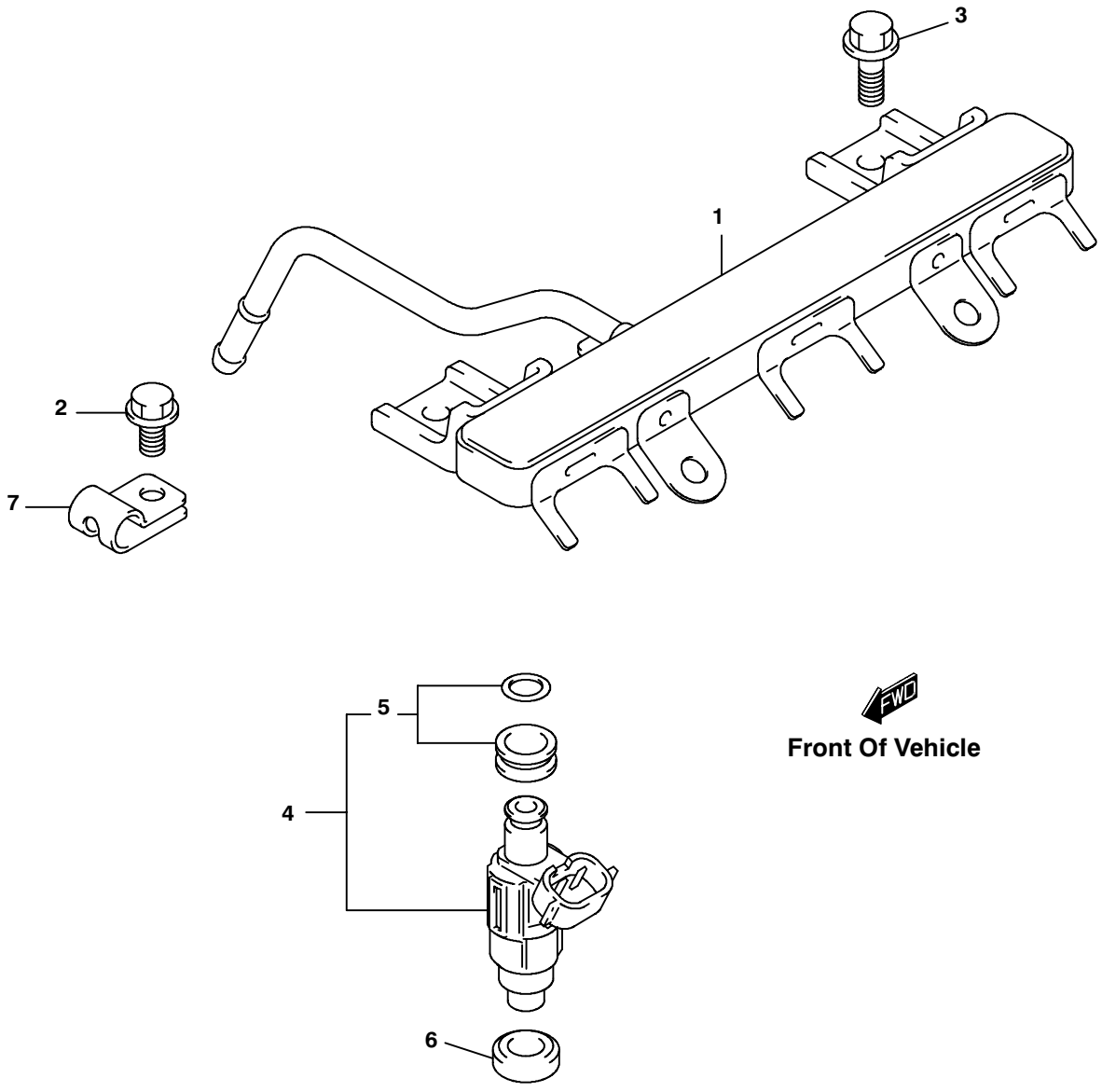
Ref. No.	Part No.	Description	No. Req'd	Notes
1	1411-67H00	Exhaust manifold	1	
2	14118-70650	Bolt	2	
3	4120060	Cover, exhaust manifold upper	1	
4	4120061	Cover, exhaust manifold lower	1	
5	1414-83G00	Gasket	1	
6	2702499	Bolt (6 X 12)	8	
7	4120063	Stud bolt	4	
8	4120064	Nut	4	
9	2702475	Bolt	1	
10	2702759	Engine hook	1	
11	2702500	Ring, seal exhaust pipe	1	
12	2702501	Spring, exhaust pipe	2	
13	2702502	Bolt (10 x 65)	2	
14	4120065	Sensor, oxygen	1	

FUEL PUMP (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Notes
1	2701897	Fuel pump assembly	1	
2	2701898	Fuel filter	1	
3	2701899	Regulator Assembly	1	
4	15830-65H51	Fuel feed pipe	1	
5	15835-65H00	Fuel feed hose	1	
6	4120066	Fuel hose clip	2	
7	2702475	Bolt	2	

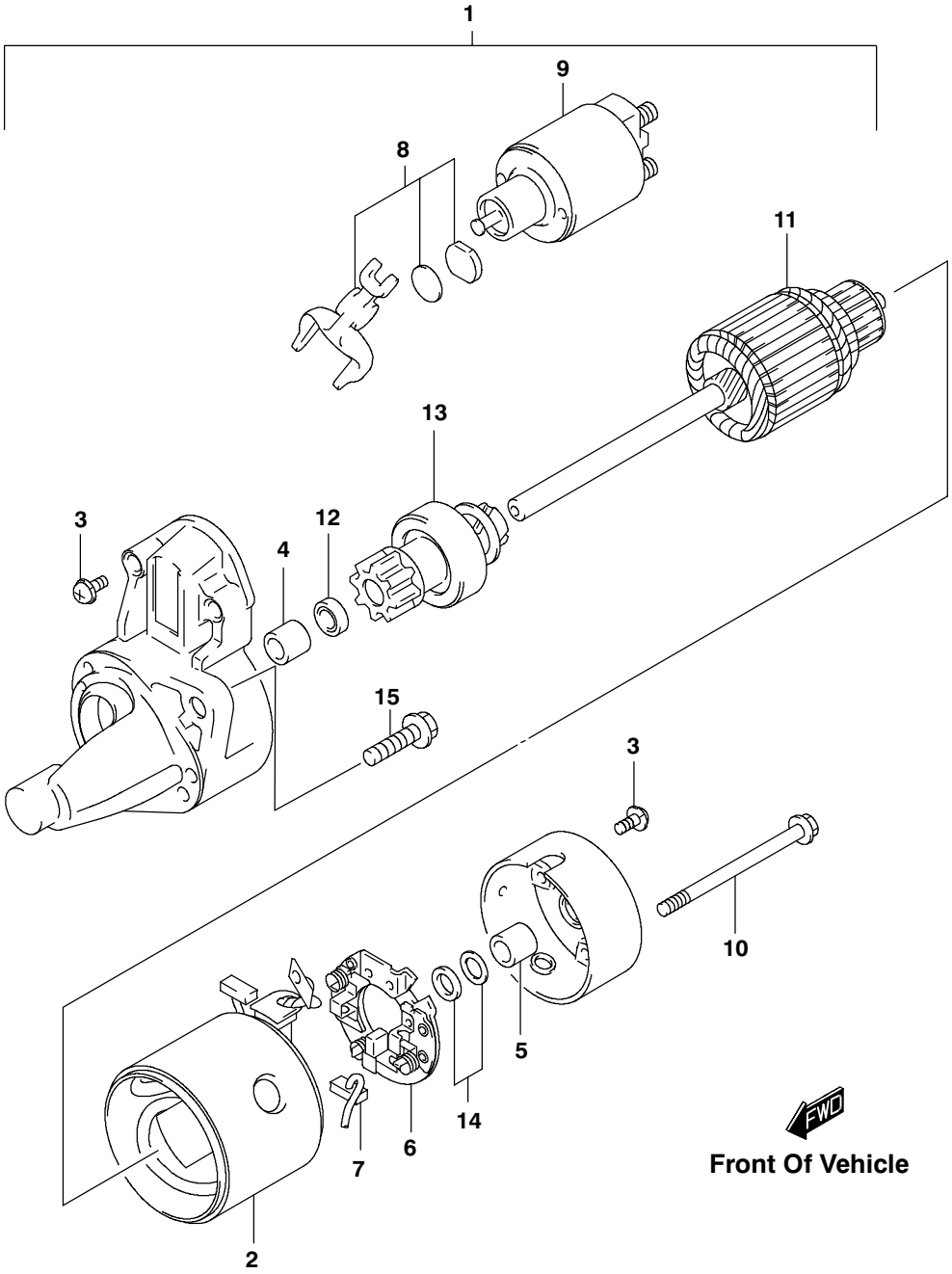
DELIVERY PIPE (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120067	Delivery pipe	1	
2	2702486	Bolt	1	
3	2701978	Bolt	2	
4	15710-65H00	Injector assembly, fuel	3	
5	2702512	•Grommet set	3	
6	2702513	Cushion	3	
7	2702514	Clamp	1	

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.

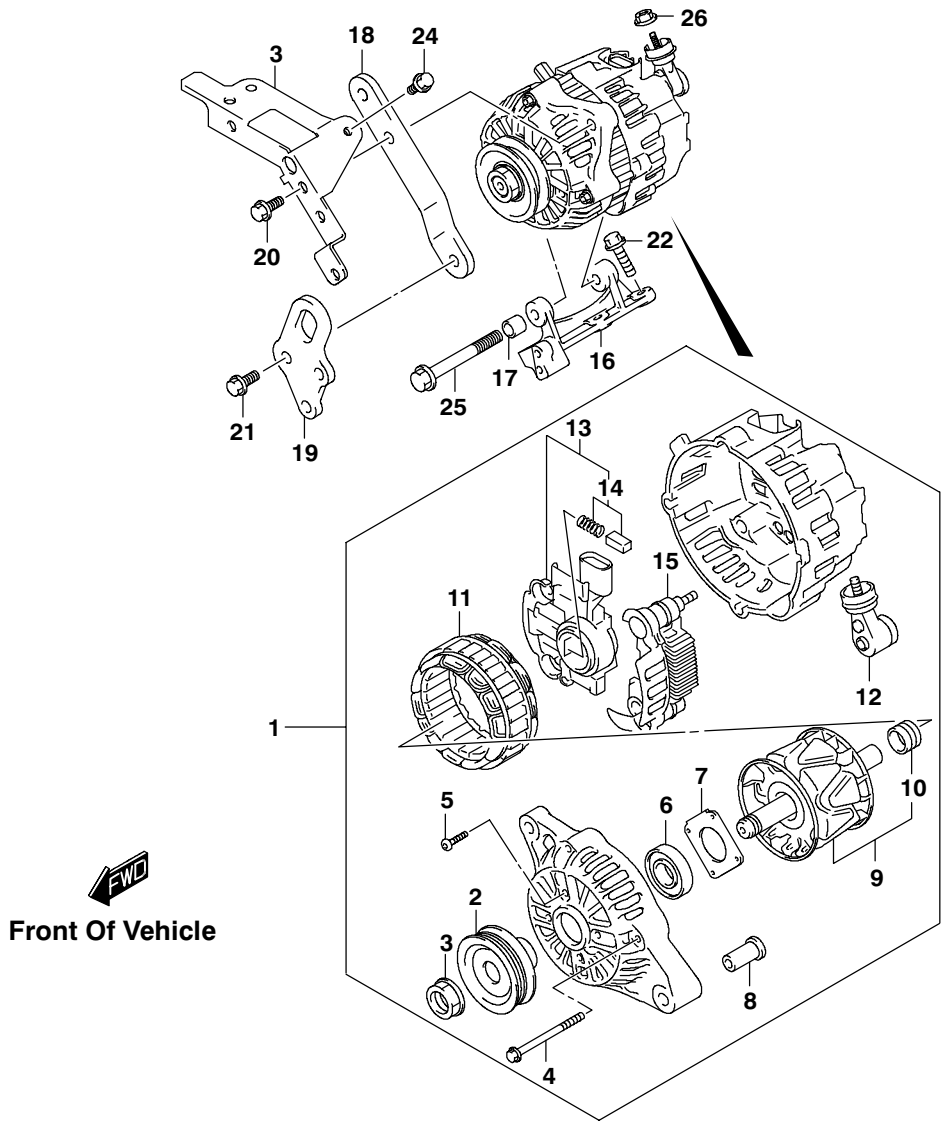
STARTER
(MANUAL TRANSMISSION) (SUZUKI K6A)



Ref. No.	Part No.	Description	No. Req'd
1	2702893	Motor assembly, starting	1
2	2702894	•Yoke assembly	1
3	2702895	•Screw assembly	1
4	2702896	•Bushing	1
5	2702897	•Bushing	1
6	2702898	•Holder assembly brush	1
7	31132-80090	••Brush (-)	1
8	2702899	•Lever assembly	1
9	2702900	•Switch assembly	1
10	2702901	•Bolt	1
11	2702902	•Armature	1
12	2702903	•Ring assembly	1
13	2702904	•Clutch assembly	1
14	2702905	•Washer	1
15	2702470	•Bolt	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

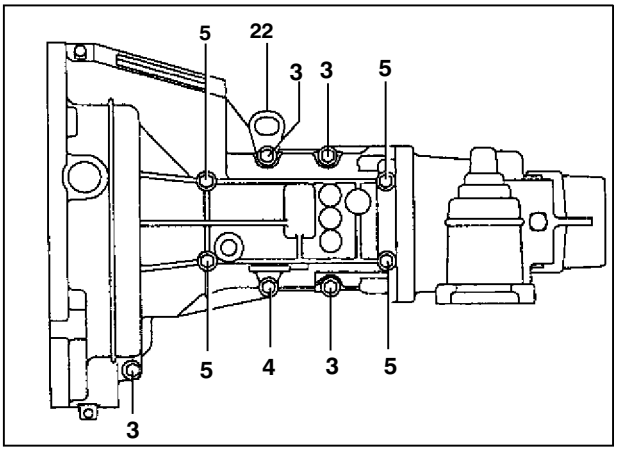
GENERATOR (SUZUKI K6A)



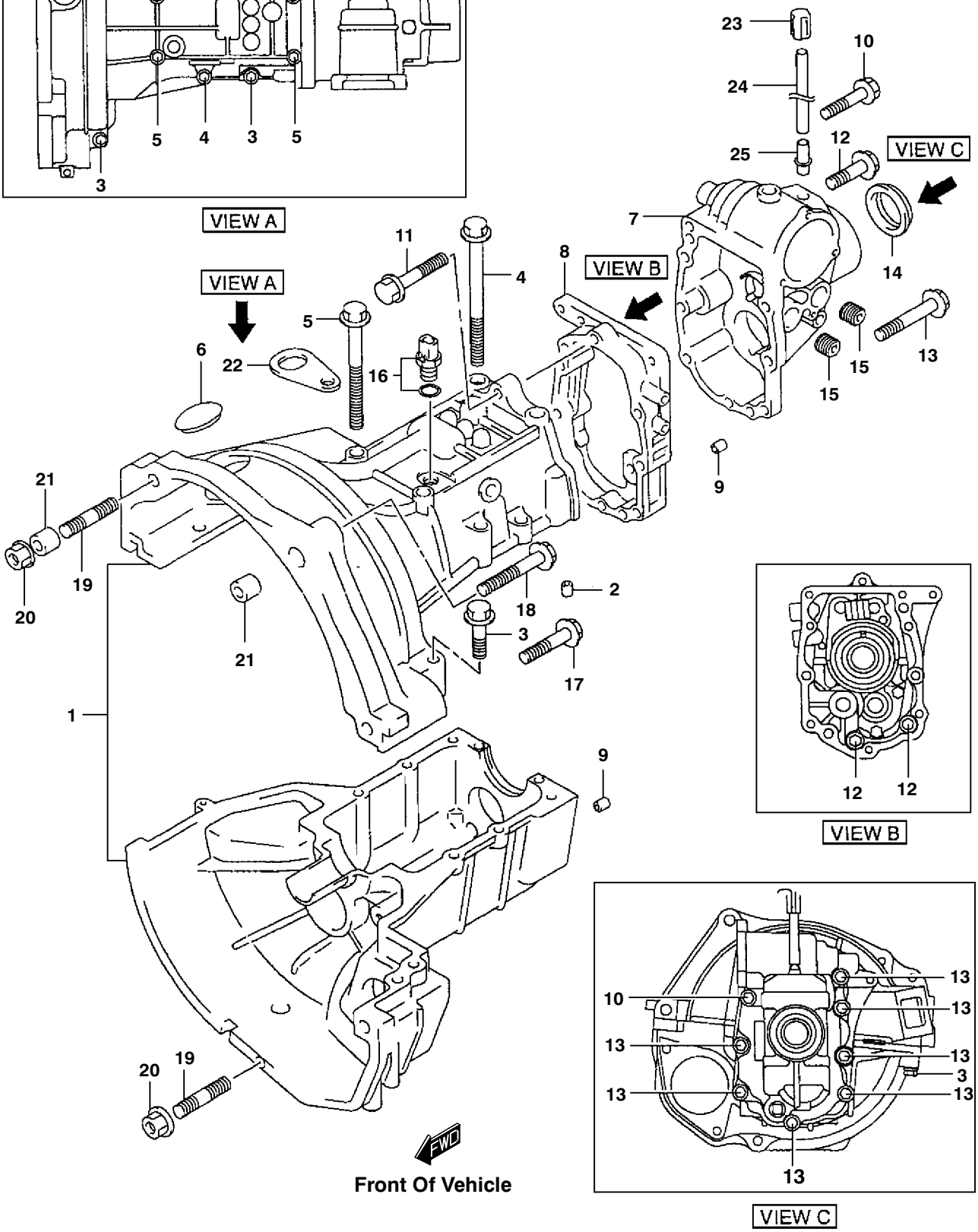
Ref. No.	Part No.	Description	No. Req'd
1	4120119	Generator assembly	1
2	4120120	•Pulley	1
3	4119681	•Nut, pulley	1
4	4119617	•Screw set	1
5	4120121	•Screw	1
6	4120122	•Bearing	1
7	4120123	•Retainer, bearing	1
8 *	4120124	•Bushing	1
9	4120125	•Rotor assembly	1
10 *	4119615	••Bearing, rear	1
11 *	4120126	•Starter assembly	1
12 *	4120127	•Terminal set	1
13 *	4120128	•Regulator	1
14 *	4119616	••Brush set	1
15 *	4120129	•Rectifier assembly	1
16 *	11551-65H00	Bracket, generator	1
17 *	11555-60G00	Bushing, generator mounting	1
18 *	4120130	Arm, generator	1
19	11851-65H00	Hook, engine	1
20	4119603	Bolt	1
21	2701827	Bolt	1
22	2702469	Bolt, generaotr bracket	3
23	31614-65H20	Bracket, generator cover	1
24	2702486	Bolt	1
25	4120131	Bolt	1
26	2701914	Nut	1

•*INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY.
Not Illustrated

TRANSMISSION CASE (MANUAL) (SUZUKI K6A)



VIEW A



VIEW B

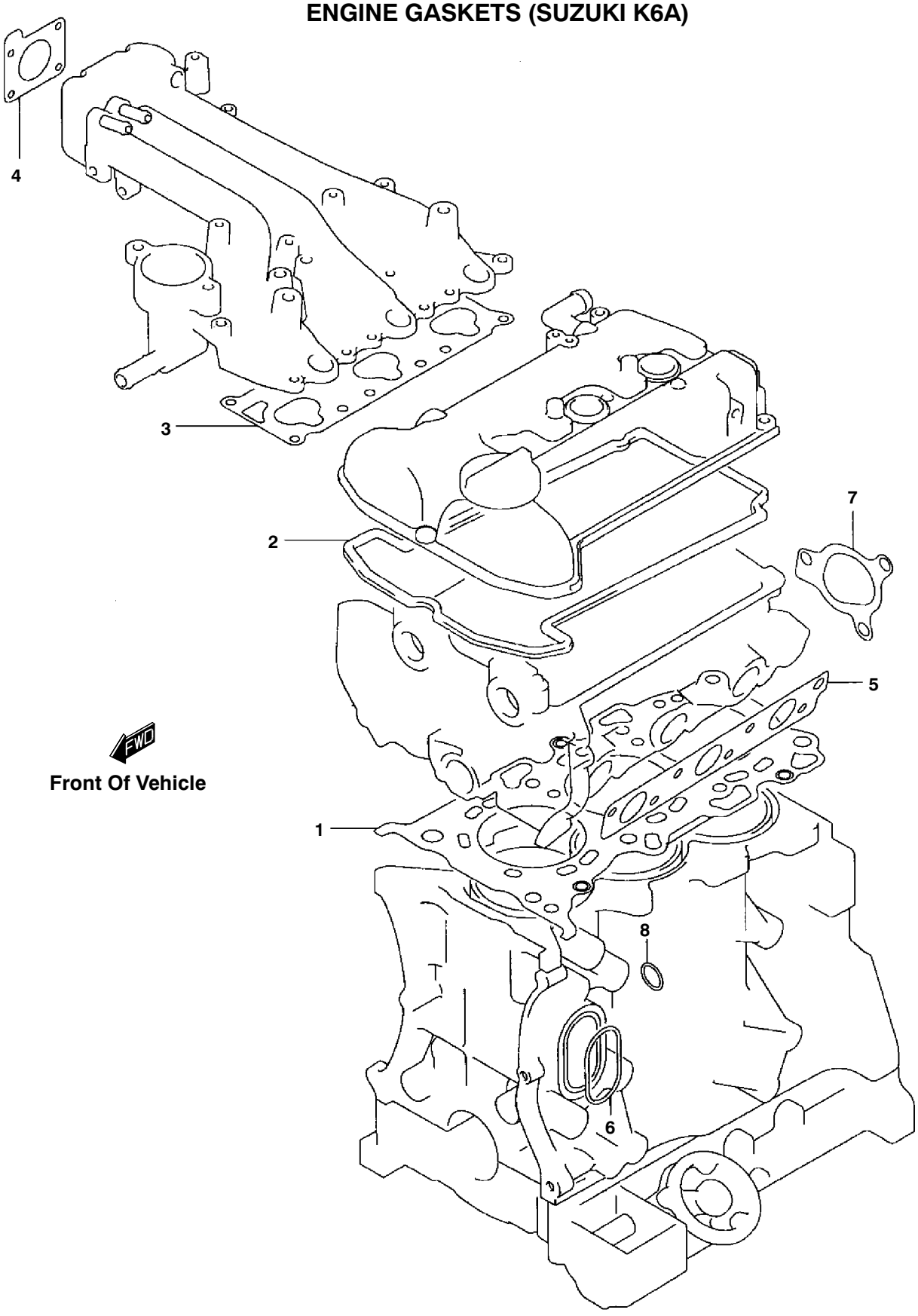
VIEW C

TRANSMISSION CASE (MANUAL)
(SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120094	Case, transmission	1	
2	2702658	•Pin, 9 x 16	2	
3	2702659	•Bolt	5	
4	2702660	•Bolt, crankcase	1	
5	2702661	•Bolt	4	
6	2702662	Cap	1	
7	2702663	Case, extension No. 1	1	
8	2702664	Case, extension No. 2	1	
9	2702658	Pin	4	
10	2702665	Bolt, 8 x 120	1	
11	2702470	Bolt	1	
12	2702659	Bolt	2	
13	2702660	Bolt	7	
14	2702683	Seal, extension case oil	1	
15	2702684	Plug	2	
16	2702685	Switch, back up lamp	1	
17	2702686	Bolt	1	
18	2702687	Bolt	1	
19	2702688	Stud bolt	2	
20	2702689	Nut	2	
21	2702690	Pin	2	
22	2702691	Hook, engine	1	
23	2702692	Plug, breather	1	
24	2702693	Hose	1	
25	2702694	Union, breather	1	

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

ENGINE GASKETS (SUZUKI K6A)

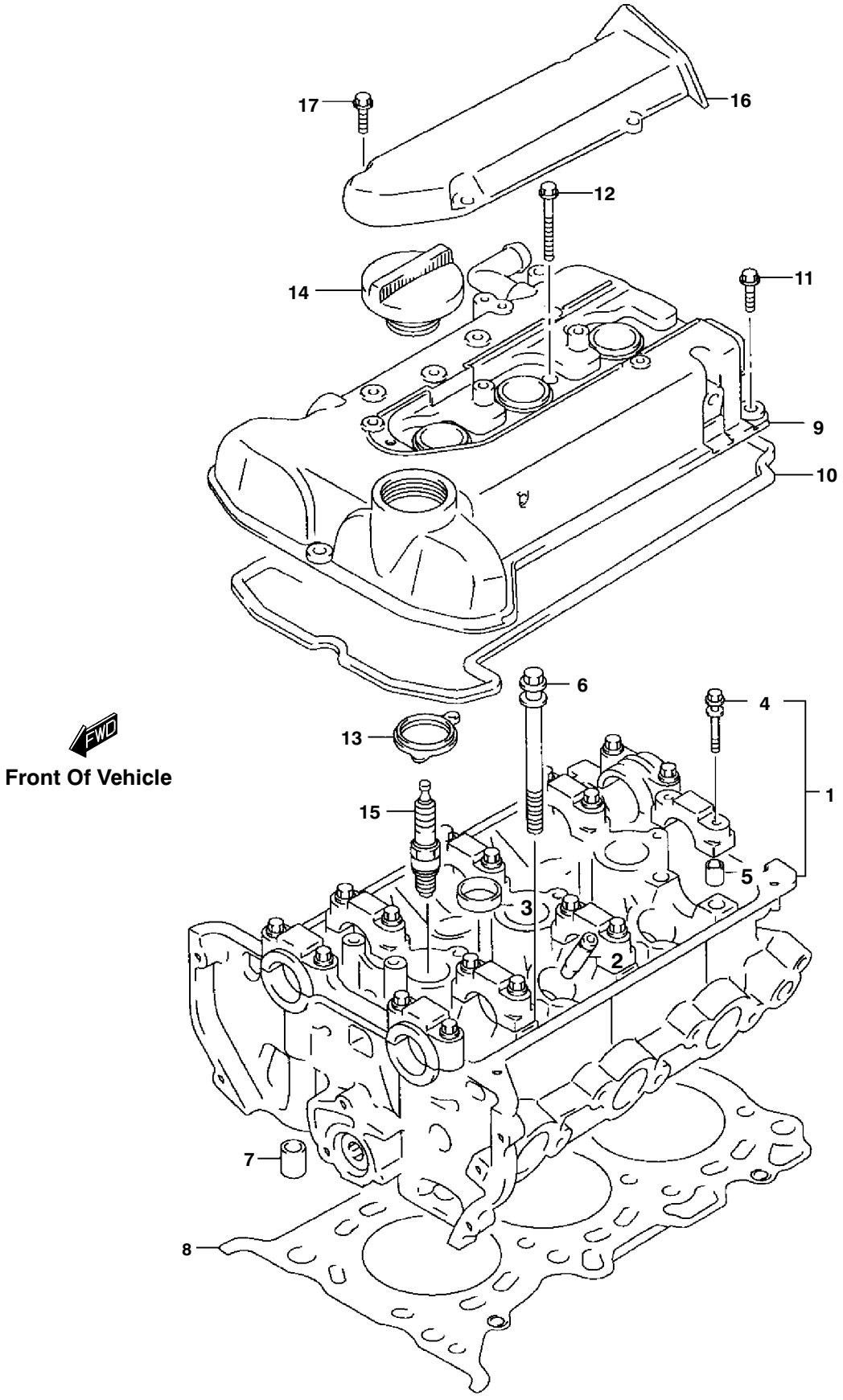


ENGINE GASKETS (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
	4119954	Gasket set, engine	1	
1	4119957	•Gasket, cylinder head	1	
2	4119958	•Gasket, cylinder head cover	1	
3	4119959	•Gasket, intake manifold	1	
4	2701803	•Gasket, throttle body	1	
5	4119960	•Gasket, exhaust manifold	1	
6	4119965	•O-ring, water pump	1	
7	4119967	•Gasket, thermostat case	1	
8	4119609	•O-ring, water inlet pipe	1	

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

CYLINDER HEAD and COMPONENTS (SUZUKI K6A)

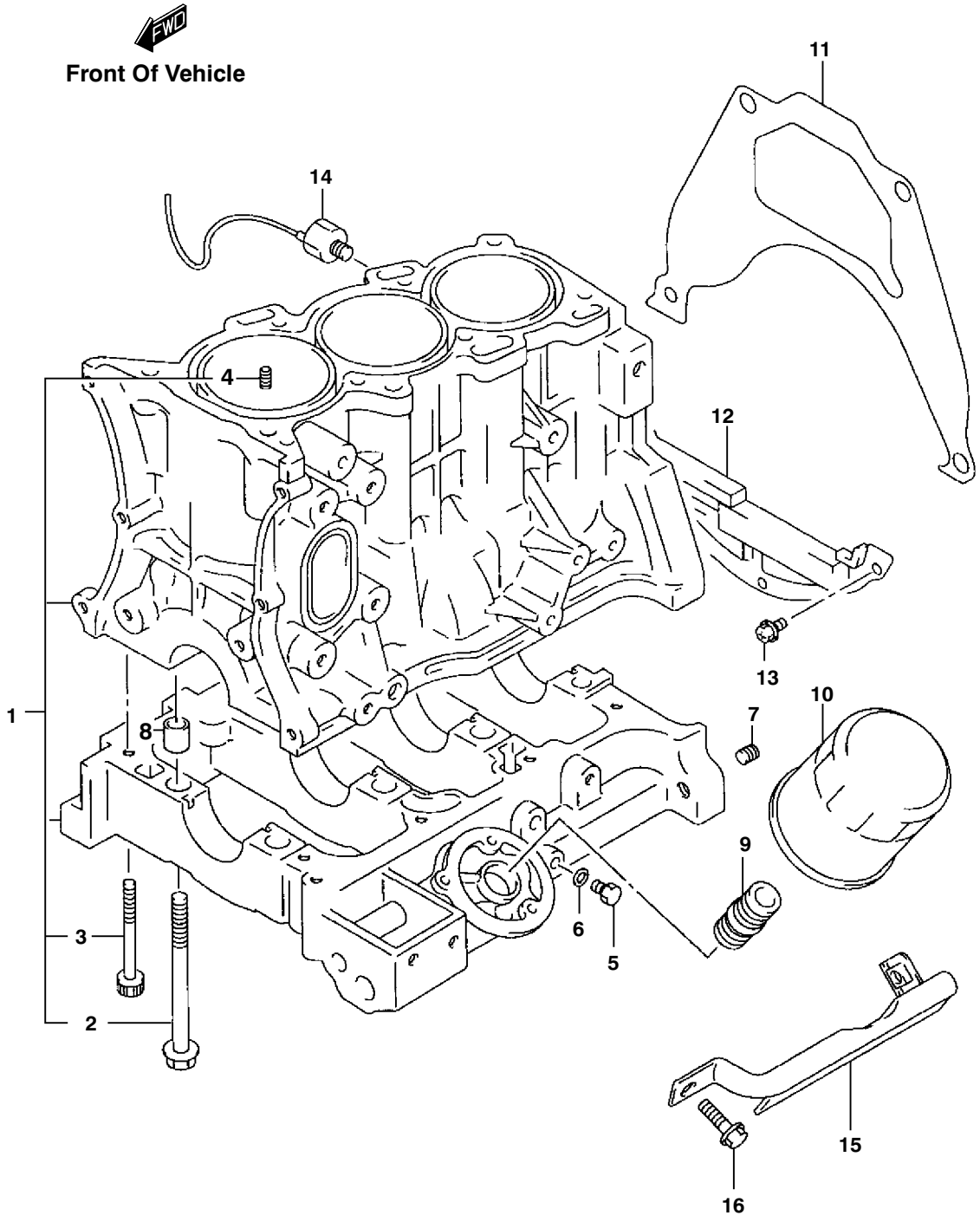


CYLINDER HEAD and COMPONENTS (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4119962	Head, cylinder	1	
2	4119963	•Guide, valve	12	
3	2701816	•Plug	2	
4	4119964	•Bolt	17	
5	2701821	•Pin	14	
6	4119956	Bolt, cylinder head	8	
7	4119966	Pin	2	
8	4119957	Gasket, cylinder head	1	
9	4119968	Cover, cylinder head	1	
10	4119958	Gasket, head upper cover	1	
11	4119970	Bolt	5	
12	4119971	Bolt	1	
13	4119972	Gasket, spark plug hole	3	
14	4119973	Cap, oil filler	1	
15	4119606	Spark plug	3	NGK, 3932
16	4117894	Cover, cylinder head, upper	1	
17	4117892	Bolt	4	

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

CYLINDER BLOCK and COMPONENTS (SUZUKI K6A)

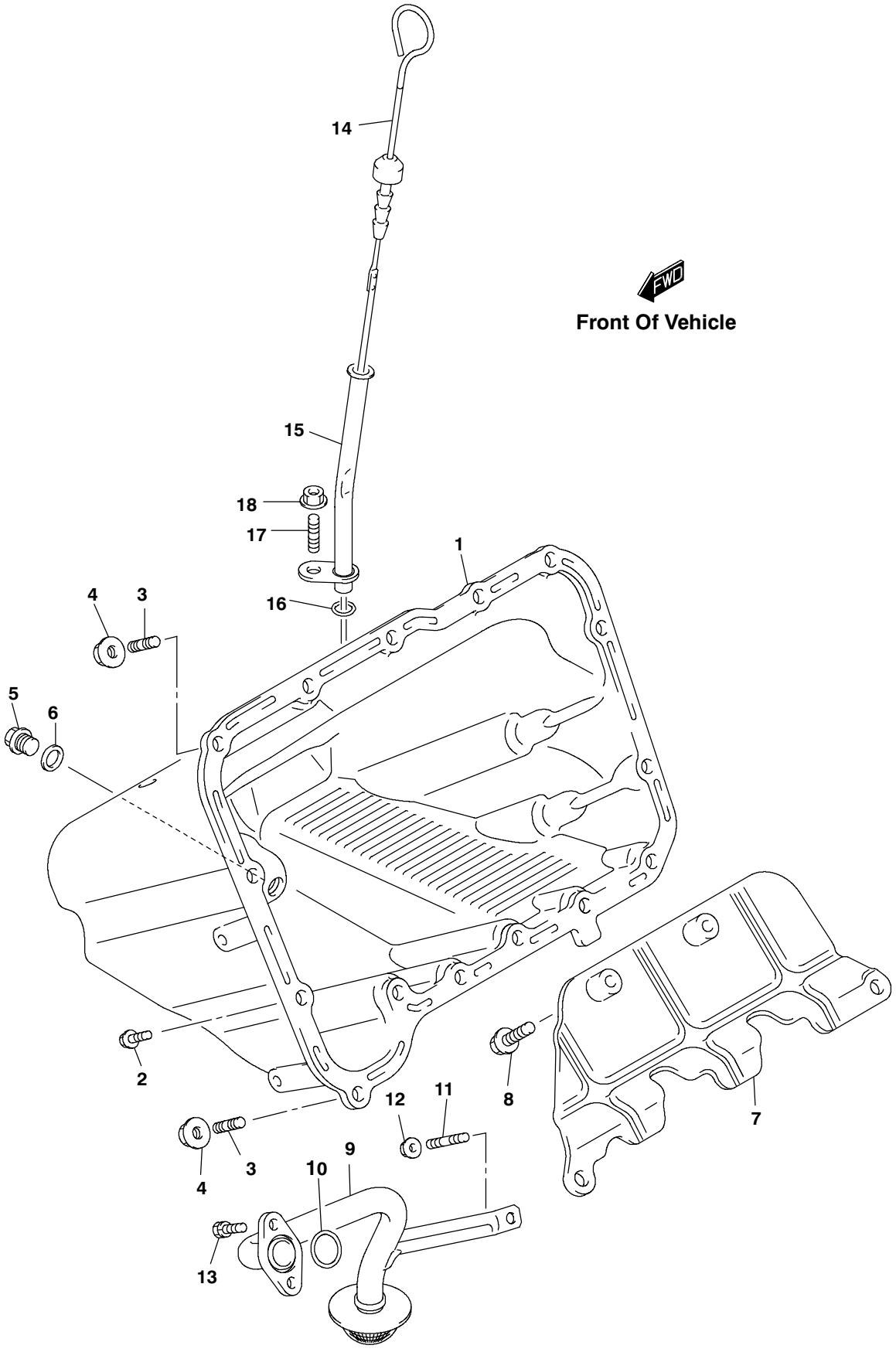


CYLINDER BLOCK and COMPONENTS (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4119974	Block, cylinder	1	
2	4119956	•Bolt, crankcase	8	
3	4120006	•Bolt, crankcase No. 2	8	
4	4119607	•Plug, oil venturi	1	
5	4120007	•Plug, oil gallery No. 2	1	
6	4120008	•Gasket, oil gallery plug	1	
7	4119604	•Plug, oil gallery	1	
8	2701824	Pin	4	
9	4120009	Stand, oil filter	1	
10	2701908	Filter, oil	1	
11	2701840	Plate, clutch housing upper	1	Manual transmission
12	4117895	Plate, clutch HSG	1	Manual transmission
13	2702537	Bolt	2	Manual transmission
14	4120010	Sensor, knock	1	
15	4117899	Guard, oil filter	1	
16	2701827	Bolt	2	

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

OIL PAN and DIPSTICK (SUZUKI K6A)

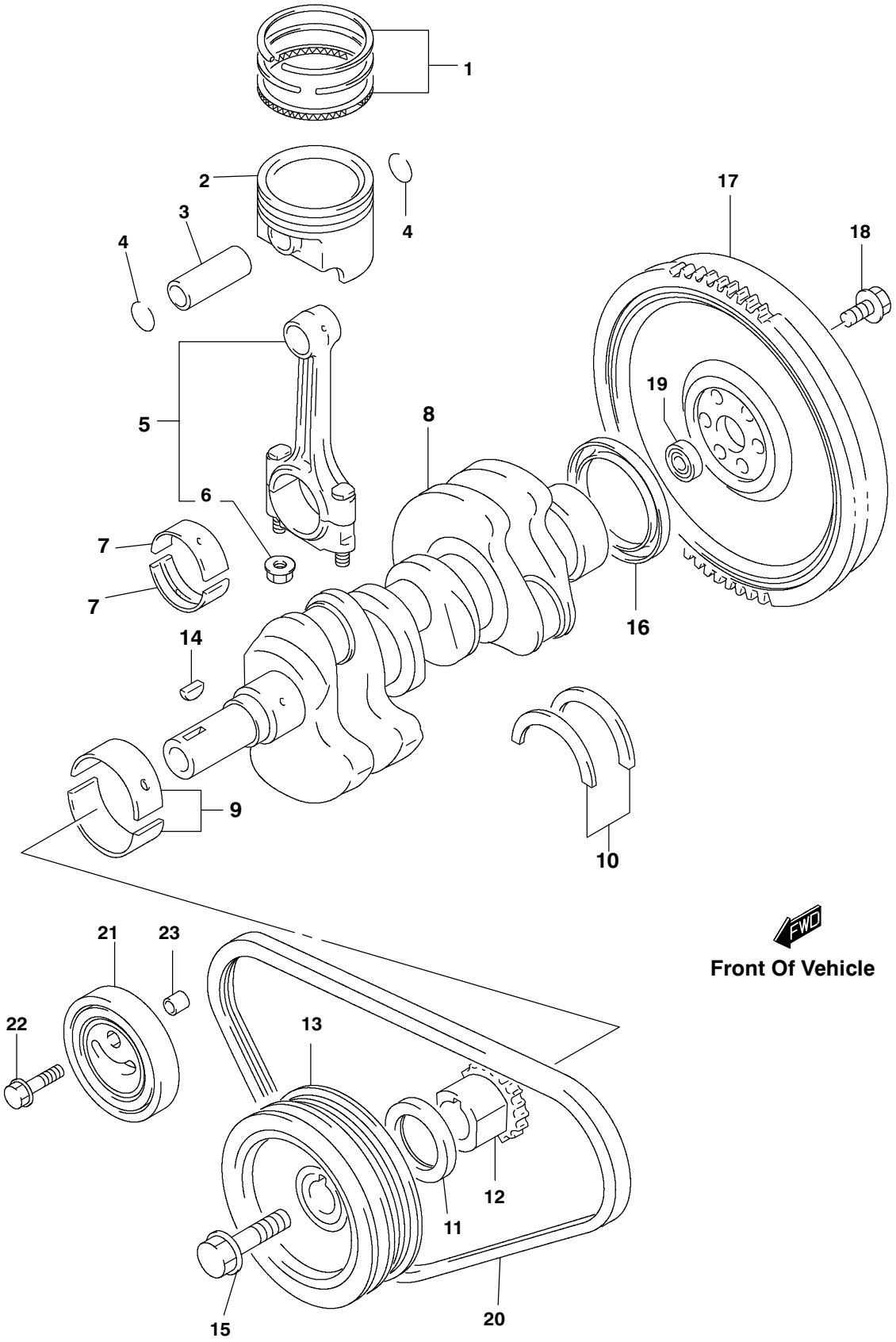


OIL PAN and DIPSTICK (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4120011	Pan, oil	1	
2	4120012	Bolt (6 x 16)	12	
3	4120013	Stud bolt	1	
4	2701914	Nut	3	
5	2701915	Plug, drain	1	
6	2701916	Gasket, drain plug	1	
7	4117897	Plate, oil pan baffle	1	
8	2702486	Bolt	11	
9	4119975	Strainer, oil pump	1	
10	2701920	O-ring	1	
11	4120014	Stud bolt	2	
12	2701914	Nut	1	
13	2701921	Bolt	2	
14	4119976	Gauge, oil level	1	
15	4119977	Guide, gauge	1	
16	4119605	O-ring	1	
17	4120015	Stud bolt	1	
18	2701914	Nut	1	

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

CRANKSHAFT, FLYWHEEL and PISTONS (SUZUKI K6A)

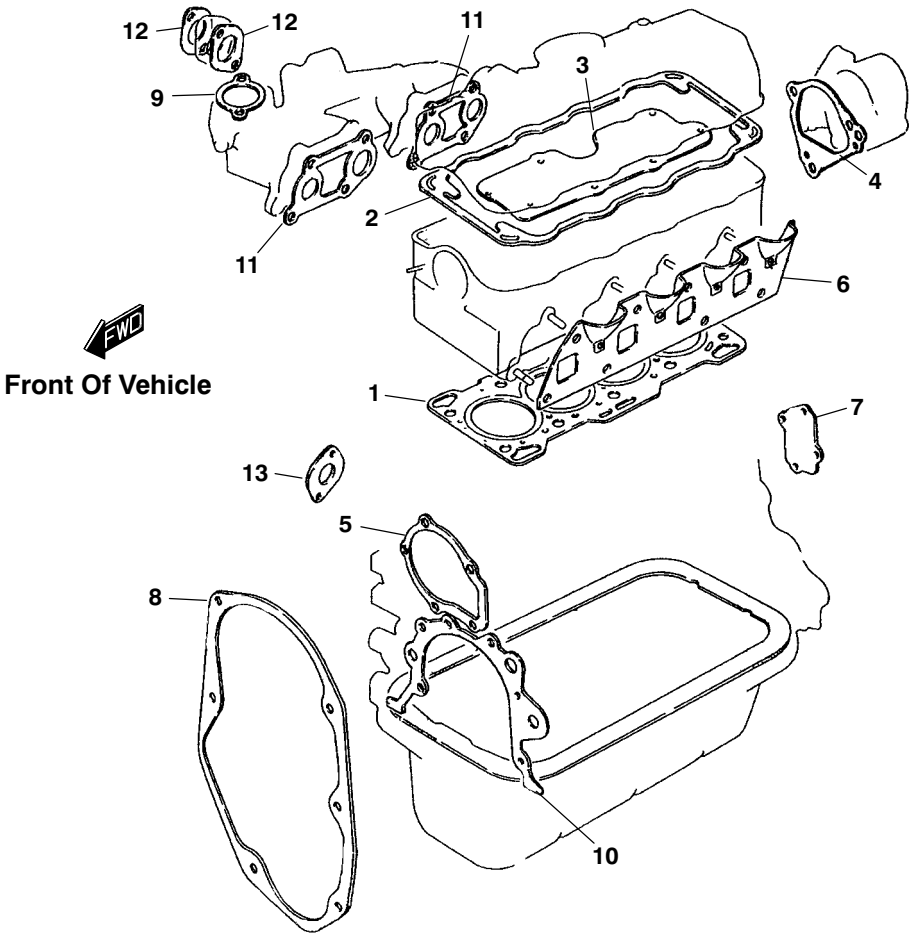


CRANKSHAFT, FLYWHEEL and PISTONS (SUZUKI K6A)

Ref. No.	Part No.	Description	No. Req'd	Notes
1	4119978	Ring set, piston	3	Standard
	4119979	Ring set, piston	3	OS:0.50
2	4119980	Piston	3	Standard, Mark 1
	4119981	Piston	3	Standard, Mark 2
	4119982	Piston	3	OS:0.50
3	4119983	Pin, piston	3	
4	4119984	Circlip	6	
5	4119985	Rod, connecting	3	
6	2701931	•Nut	2	
7	4119608	Bearing set, connecting rod	6	
8	4119986	Crankshaft	1	
9	4119987	Bearing set, crankshaft	4	Green
	4119988	Bearing set, crankshaft	4	Black
	4119989	Bearing set, crankshaft	4	Non color
	4119990	Bearing set, crankshaft	4	Yellow
	4119991	Bearing set, crankshaft	4	Brown
10	2701937	Bearing set, crank thrust	1	Standard
	2701938	Bearing set, crank thrust	1	OS, T:2.563
11	2701955	Seal, crankshaft front oil	1	
12	4120019	Sprocket, crank timing	1	
13	4120020	Pulley, crankshaft	1	
14	4120021	Key	1	
15	4120022	Bolt	1	
16	4120023	Seal, oil	1	
17	4120024	Flywheel	1	Manual transmission
18	4119955	Bolt, 10 x 18.5	6	Manual transmission
19	2701952	Bearing, input shaft	1	Manual transmission
20	4120026	Water pump belt	1	
21	4120027	Tensioner	1	
22	4120028	Bolt	2	
23	4120029	Pin	1	

•INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN PRECEDING ASSEMBLY.

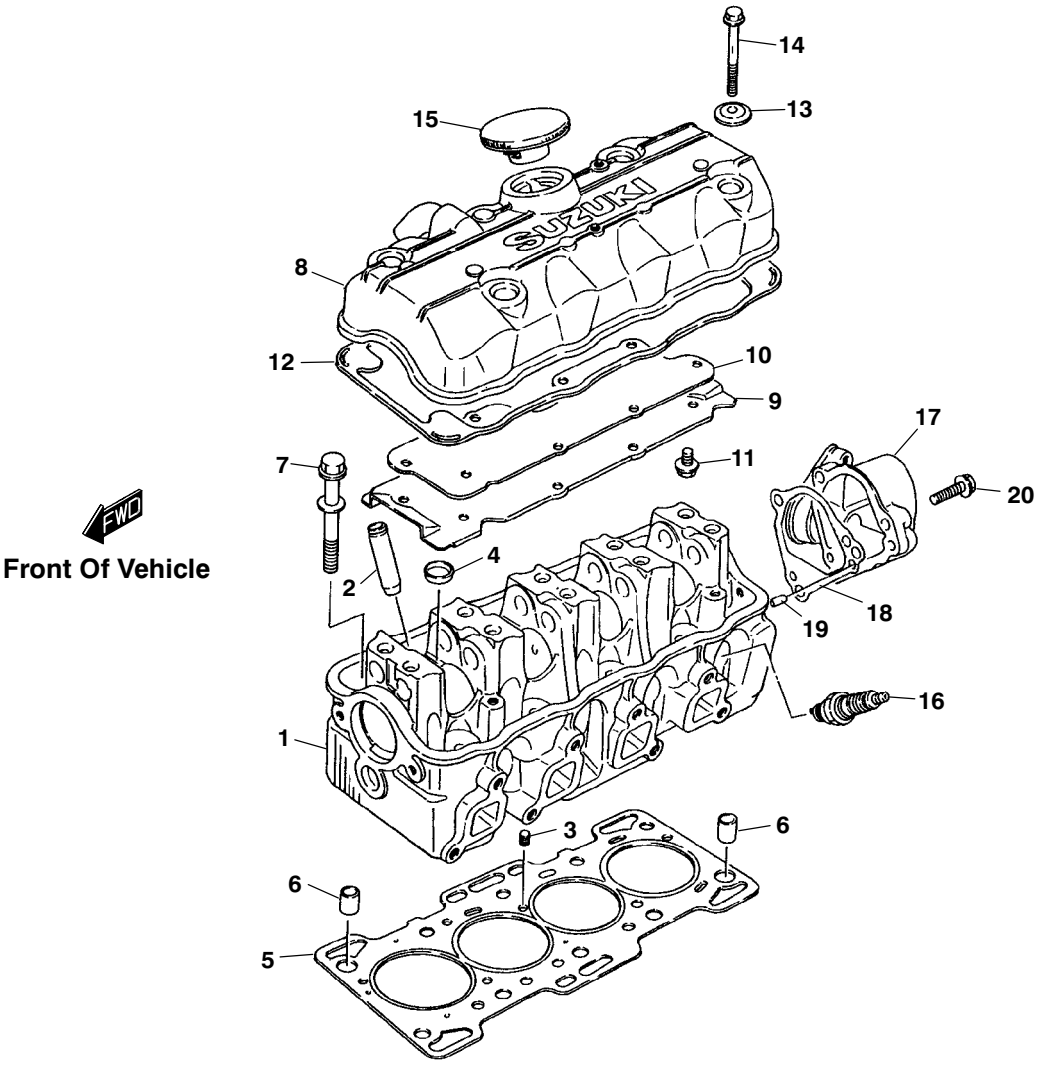
ENGINE GASKETS (SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd	Ref. No.	Part No.	Description	No. Req'd
	11401-85893	Gasket set, complete	1	7	11229-73000	•Gasket, cylndr. block plate	1
1	11141-75120	•Gasket, head	1	8	11399-73010	•Gasket, timing belt cover .	1
2	11189-73004	•Gasket, valve cover	1	9	17569-60A10	•Gasket, thermostat cap . .	1
3	11173-73001	•Gasket, breather plate . . .	1	10	16119-76G00	•Gasket, oil pump case . . .	1
4	11169-70D00	•Gasket, distributor case . .	1	11	13119-73001-H17	•Gasket, intake man. .	2
5	17431-73001	•Gasket, water pump	1	12	13125-80000-H17	•Gasket, carburetor . .	2
6	14140-85200	•Gasket, exhaust man. . . .	1	13	17559-73000-H17	•Gasket, water inlet . .	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

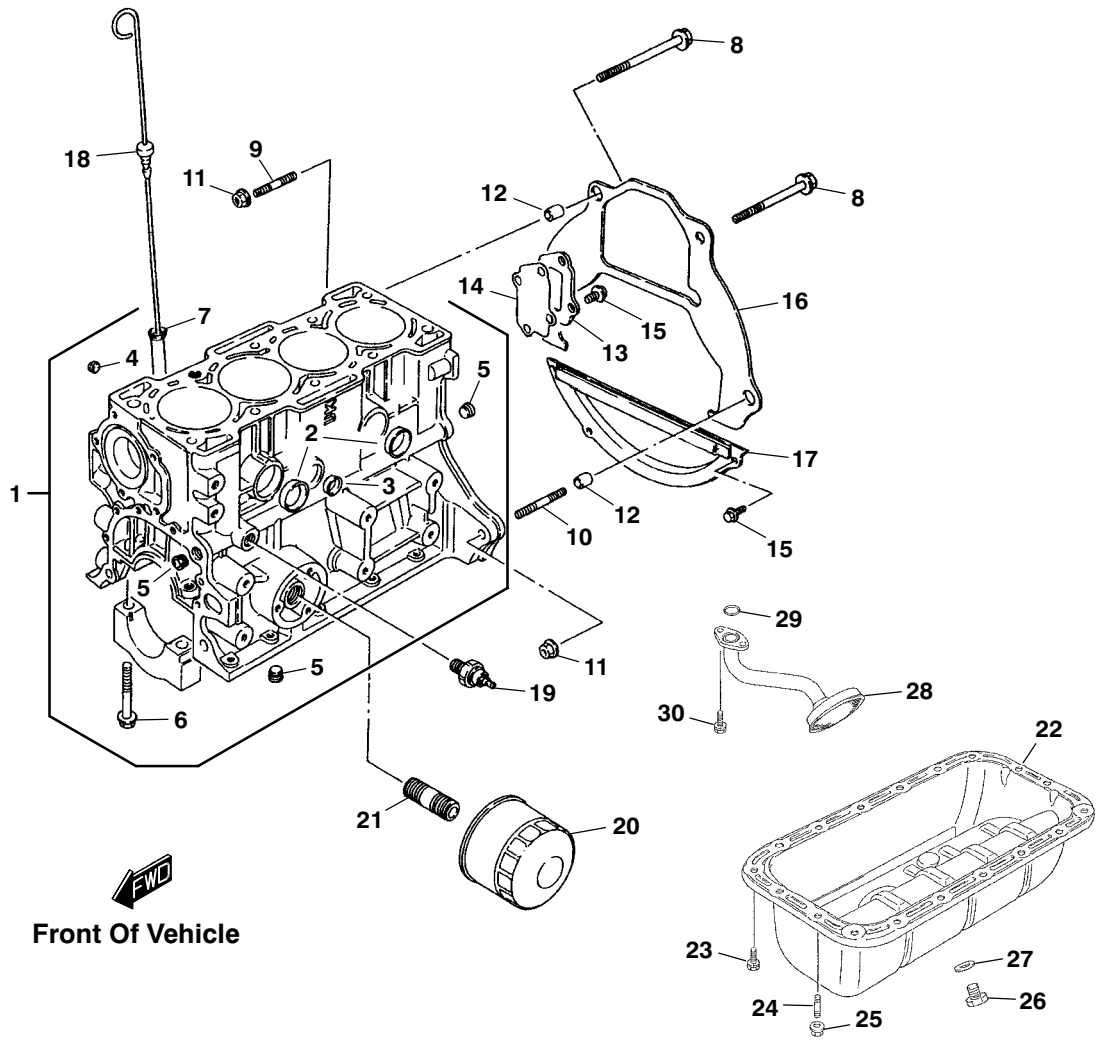
CYLINDER HEAD and COMPONENTS (SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	11110-80002	Head, cylinder	1
2	11115-82000-001	•Guide, valve	8
3	11112-73002	•Plug, oil venturi	1
4	09241-20006	•Plug	5
5	11141-75120	Gasket, cylinder head	1
6	04211-13189	Pin	2
7	09116-10116	Bolt (10 x 87)	10
8	11170-79203	Cover, cylinder head	2
9	11172-73000	Plate, breather	1
10	11173-73001	Gasket, breather plate	1
11	02162-06103	Bolt	8
12	11189-73004	Gasket, head cover	1
13	11180-82010	Grommet, head cover	4
14	09103-06134	Bolt (6 x 65)	4
15	16920-86502	Cap, oil filler	1
16	09482-00123	Plug, spark W16EX-U, Denso	4
or	09482-00131	Plug, spark BP5ES, NGK	4
17	11161-79120	Case, distributor	1
18	11169-70D00	Gasket, case	1
19	04221-06129	Pin	2
20	09103-08153	Bolt, No. 2 (8 x 30)	3

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

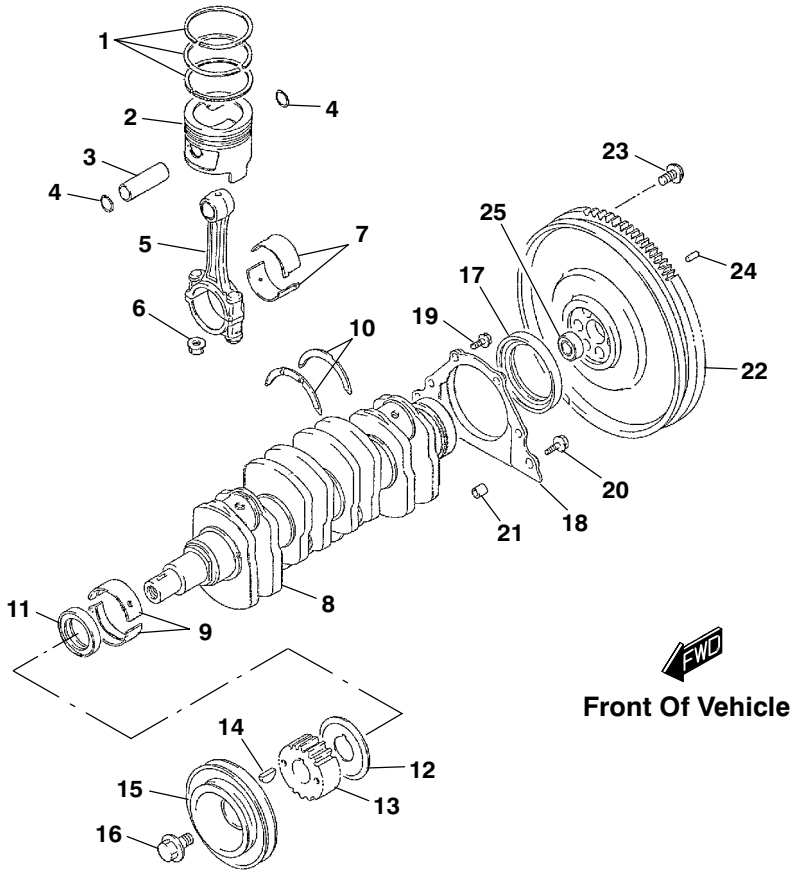
CYLINDER BLOCK, OIL PAN and GASKET
(SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	11200-80001	Block, cylinder	1
2	09241-30009	•Plug (OD:30)	3
3	09246-20006	•Plug (OD:20)	2
4	09246-05006	•Plug, oil gallery	1
5	09246-06002	•Plug, oil gallery	3
6	01550-10603	•Bolt	10
7	11219-85200	•Guide, oil level gauge	1
8	09103-10063	Bolt (10 x 115)	2
9	01421-10403	Stud bolt	1
10	01421-10503	Stud bolt	1
11	08316-10103	Nut	2
12	04211-13149	Pin	2
13	11221-73000	Plate, cylinder block	1
14	11229-73000	Gasket	1
15	02162-06103	Bolt	6
16	11311-79100	Plate, clutch hsng. upper	1
17	11320-77201	Plate, clutch hsng. lower	1
18	16910-85550	Gauge, oil level	1
19	37820-82001	Switch, oil pressure	1
20	16510-82703	Filter, oil	1
21	11241-73003	Stand, oil filter	1
22	11510-85201	Pan, oil	1
23	09117-06059	Bolt (6 x 16)	16
24	01411-06163	Stud bolt	2
25	08316-10063	Nut	2
26	09247-12101	Plug, oil drain	1
27	09168-12018	Gasket	1
28	16520-79101	Strainer, oil pump	1
29	09280-16005	O-ring	1
30	01570-06163	Bolt	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

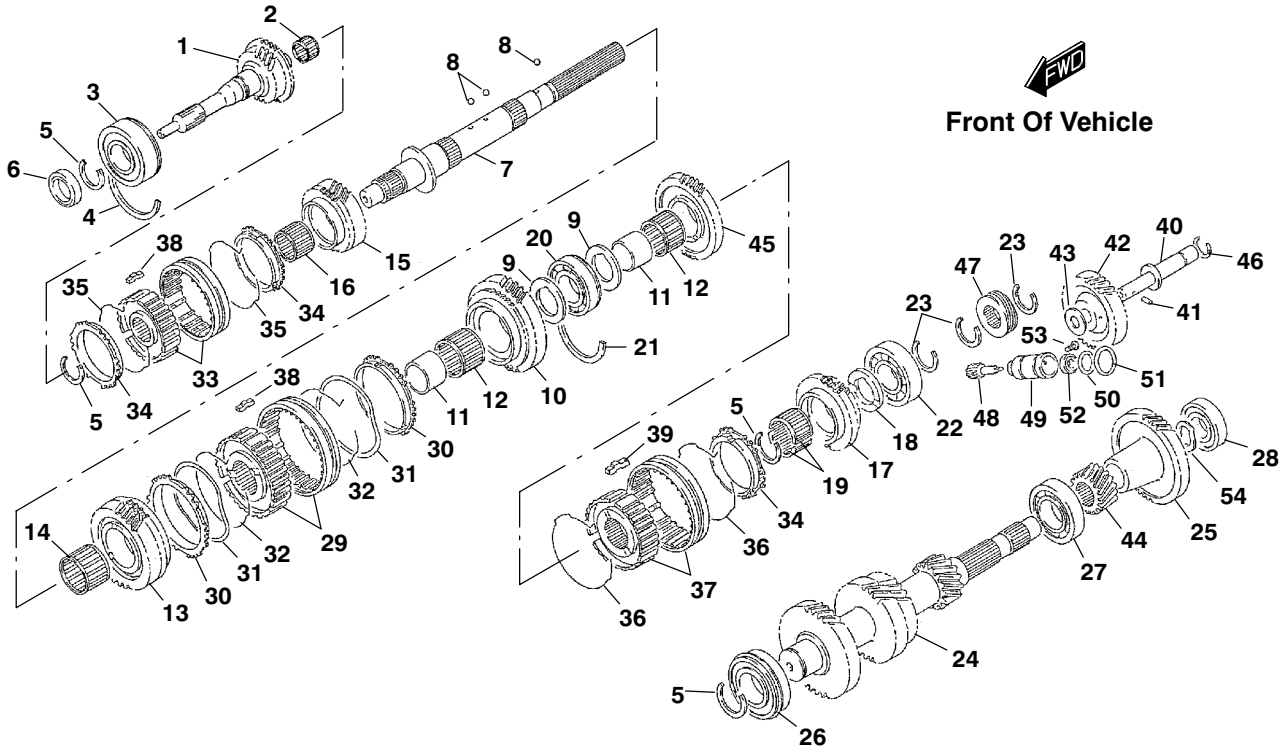
CRANKSHAFT, FLYWHEEL and PISTONS (SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	12140-75112	Ring, piston (standard)	4
(1)	12140-75112-025	Ring, piston	4
(1)	12140-75112-050	Ring, piston	4
2	12111-85201-0B0	Piston (standard)	4
(2)	12111-85201-025	Piston (OS:0.25)	4
(2)	12111-85201-050	Piston (OS:0.50)	4
3	12151-29001	Pin, piston	4
4	09381-16001	Circlip	8
5	12160-73010	Rod, connecting	4
6	09159-08033	•Nut, connecting rod	8
7	12181-81051-0A0	Bearing (standard)	8
(7)	12181-81051-025	Bearing, cnctng. rod	8
(7)	12181-81051-050	Bearing, cnctng. rod	8
(7)	12181-81051-075	Bearing, cnctng. rod	8
(7)	12181-81051-100	Bearing, cnctng. rod	8
8	12221-75104	Crankshaft	1
9	12300-73812-0A0	Bearing set, crnkshft.	1
(9)	12300-73812-025	Bearing set, crnkshft.	1
(9)	12300-73812-050	Bearing set, crnkshft.	1
(9)	12300-73812-075	Bearing set, crnkshft.	1
(9)	12300-73812-100	Bearing set, crnkshft.	1
10	12300-73830	Bearing set, crank thrust	1
(10)	12300-73830-012	Bearing set, thrust	1
(10)	12300-73830-025	Bearing set, thrust	1
11	09283-32040	Seal, front	1
12	12635-78401	Guide, timing belt	1
13	12631-78401	Pulley, timing belt	1
14	08341-31059	Key	1
15	12611-66C00	Pulley, crank	1
16	12619-60B00	Bolt	1
17	09283-60005	Seal, rear main	1
18	11341-70B01	Housing, oil seal	1
19	01550-06203	Bolt	4
20	02122-06253	Bolt	2
21	04211-09109	Pin	2
22	12620-85301	Flywheel	1
23	09103-10097	Bolt (10 x 17)	6
24	04421-06129	Pin	1
25	12623-70B00	Bearing, input shaft	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

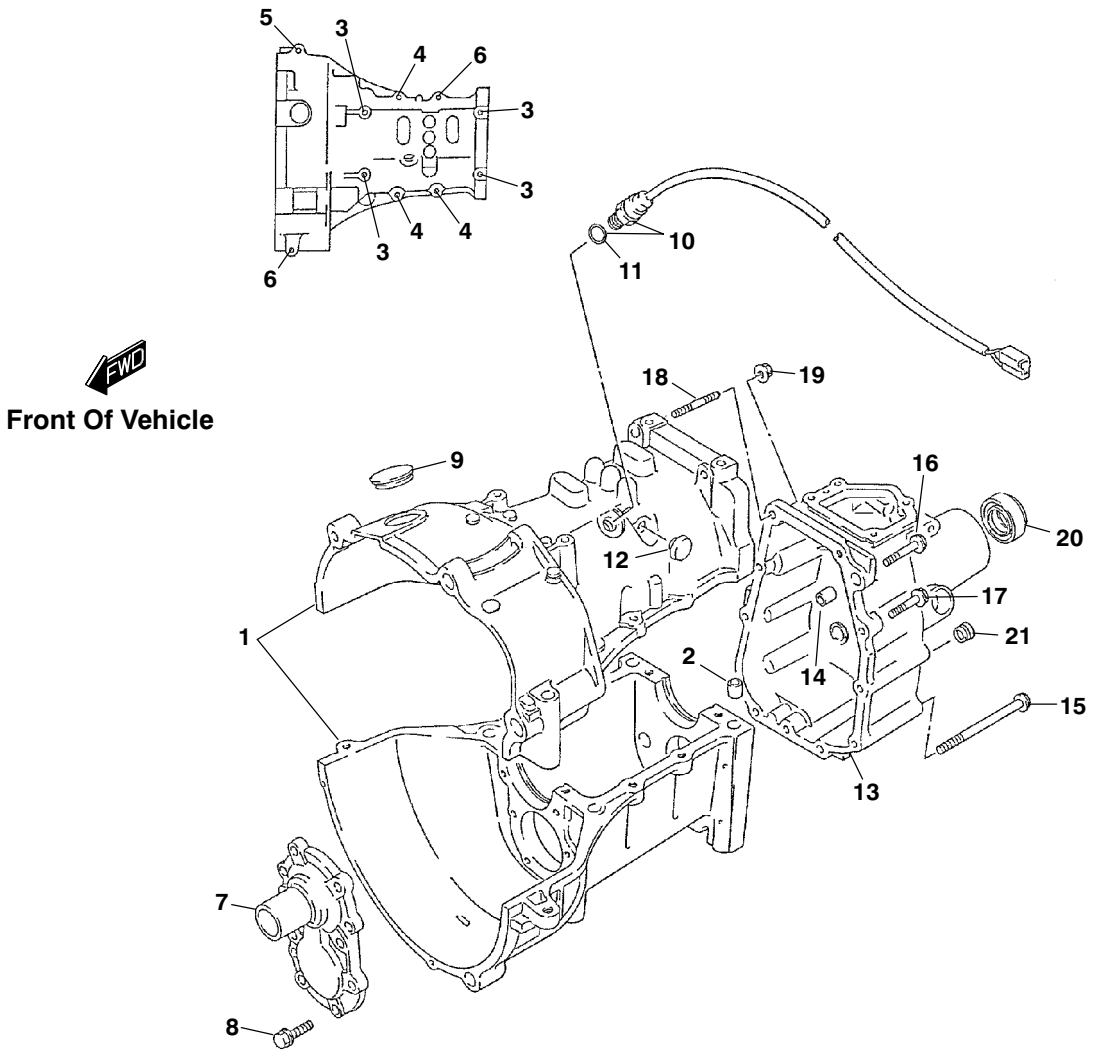
INPUT SHAFT and GEARS (MANUAL TRANSMISSION)
(SUZUKI 970 and PERKINS DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	24110-80410	Shaft, input	1
2	09263-20056	Bearing	1
3	09262-28005	Bearing	1
4	09390-68002	C-ring	1
5	09380-28007	Circlip	4
6	09283-25088	Seal,oil	1
7	24121-85252	Shaft, main	1
8	06111-06003	Ball	3
9	09166-30007	Washer	2
10	24211-83011	Gear, main shaft, low	1
11	09300-30003	Bushing	2
12	09263-35015	Bearing	2
13	24220-60A01	Gear, main shaft 2nd	1
14	09263-35015	Bearing	1
15	24230-83001	Gear, main shaft 3rd	1
16	09263-30031	Bearing	1
17	24250-83020	Gear, main shaft 5th	1
18	24255-60A00	Washer	1
19	24801-60810	Bearing	1
20	09262-30086	Bearing	1
21	09390-62010	C-ring	1
22	09262-25073	Bearing	1
23	09380-25011	Circlip	3
24	24131-83002	Shaft, counter	1
25	24351-60A10	Gear, counter shaft 5th	1
26	09262-28019	Bearing, front	1
27	09262-28020	Bearing, center	1

Ref. No.	Part No.	Description	No. Req'd
28	09262-20073	Bearing, rear	1
29	24400-83000	Hub, synchronizer low	1
30	24431-83001	Ring, synchronizer low	2
31	24436-83000	Spring, low/2nd	2
32	24441-85F41	Spring, low	2
33	24410-83000	Hub, synchronizer high	1
34	24432-83001	Ring, synchronizer high	3
35	24442-81A20	Spring, high	2
36	09388-00019	Spring, 5th speed	2
37	24420-83000	Hub, reverse drive	1
38	24471-60A00	Key	6
39	24473-70D10	Key	3
40	24551-83010	Shaft, reverse idle gear	1
41	09261-06003	Pin	1
42	24560-83001	Gear, reverse idle (NT:33)	1
43	09166-16014	Washer	1
44	24671-83000	Gear, countershaft (rev.)	1
45	24681-83000	Gear, mainshaft (rev.)	1
46	09380-17008	Circlip	1
47	26121-85202	Gear, speedometer drive	1
48	26131-85201	Gear, speedometer driven	1
49	29431-85400	Case, speedometer gear	1
50	09280-19001	O-ring	1
51	09280-21014	O-ring	1
52	09282-08001	Seal, oil	1
53	09128-06032	Bolt	1
54	09164-20008	Washer	1

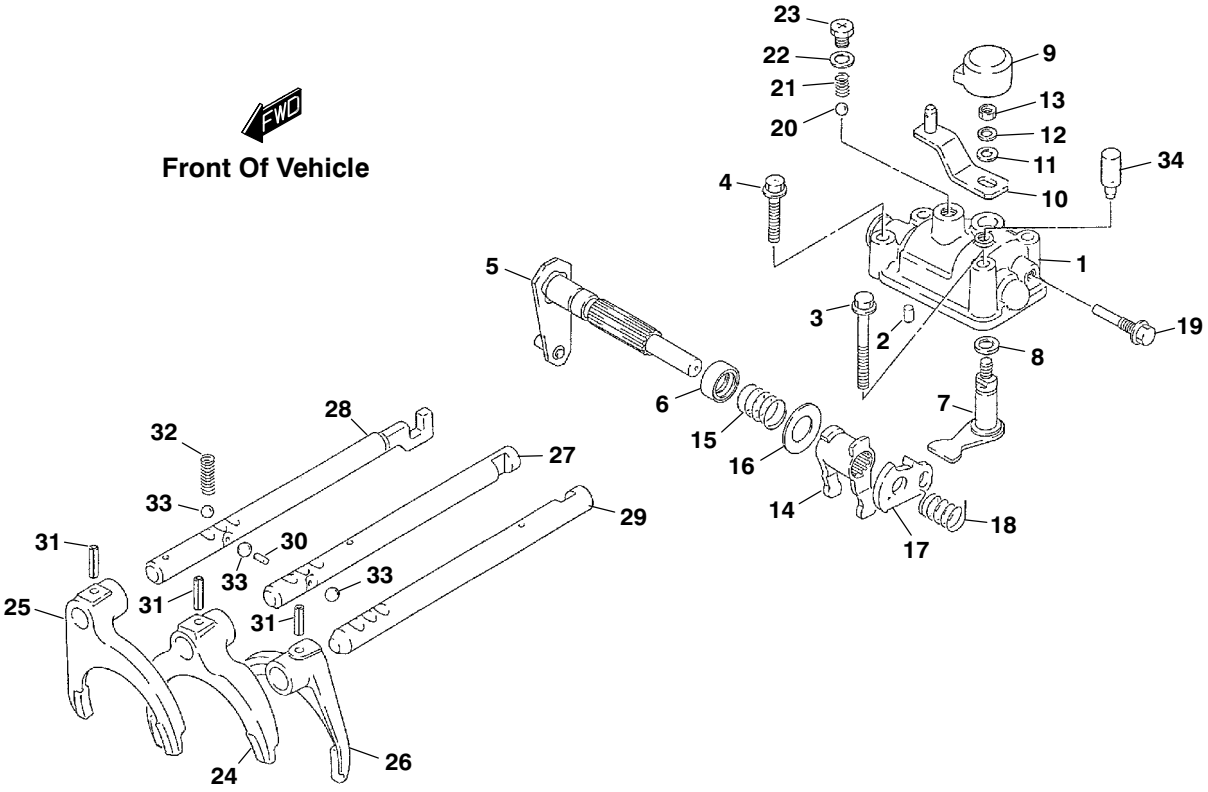
TRANSMISSION CASE
(SUZUKI 970 and PERKINS DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	24700-85200	Case, transmission	1
2	04211-13149	•Pin	2
3	09103-08131	•Bolt, No. 1 (8 x 120)	4
4	01550-08303	•Bolt, No. 2	3
5	01550-08403	•Bolt, No. 3	1
6	01550-08803	•Bolt, No. 4	2
7	24741-83001	Retainer, input shaft brng.	1
8	09103-08152	Bolt (8 x 25)	8
9	09250-30003	Cap, inspection timing	1
10	37610-80023	Switch, back-up lamp	1
11	09280-11002	•O-ring	1
12	09250-10006	Plug, locating	1
13	24770-85252	Case, extension	1
14	04211-13149	Pin	2
15	09103-08132	Bolt, No. 1 (8 x 100)	3
16	01550-08403	Bolt, No. 2	1
17	01550-08353	Bolt, No. 3	5
18	01421-08303	Stud bolt	1
19	08316-10083	Nut	1
20	24780-83010	Seal, extension case	1
21	09246-16010	Plug, oil filler	2

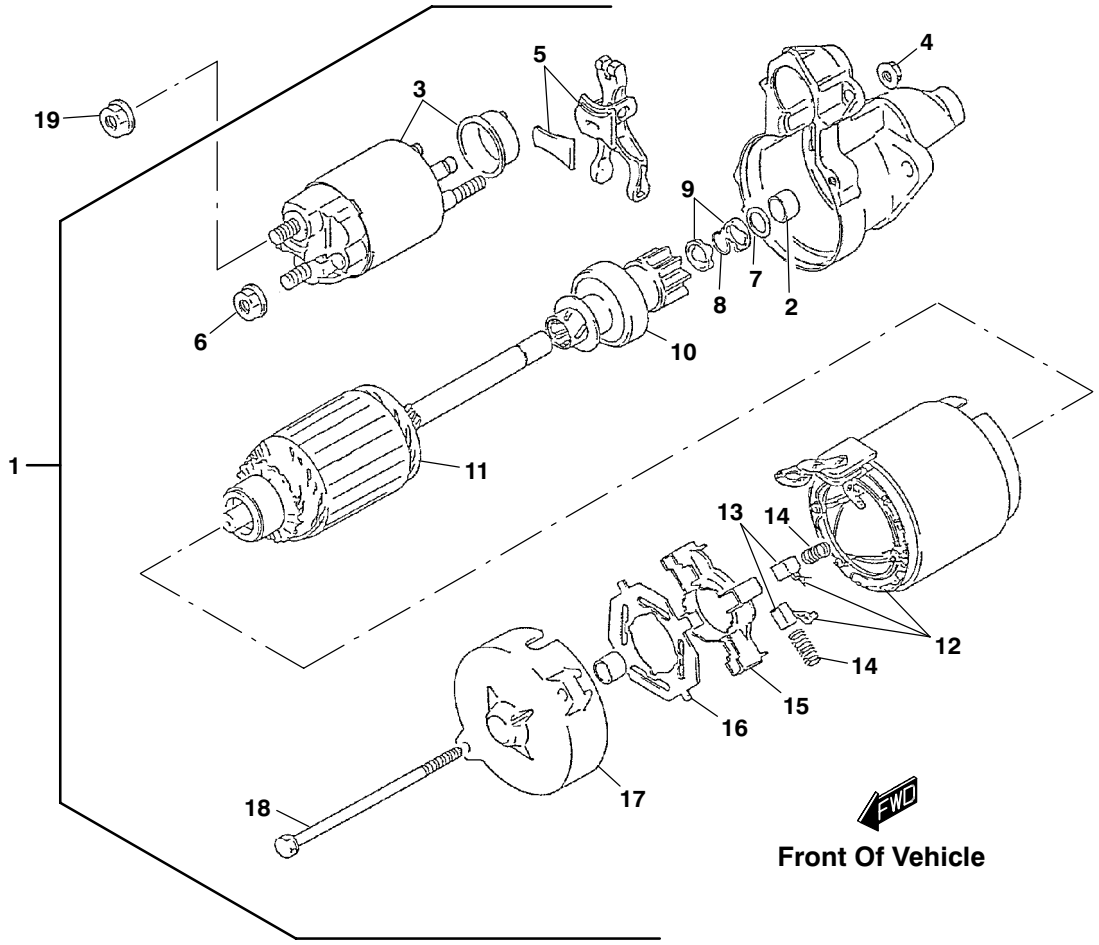
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

GEAR SHIFT FORK
(SUZUKI 970 and PERKINS DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	25121-85051	Case, gear shift lever	1
2	04221-06129	Pin	1
3	01550-08553	Bolt	1
4	01550-08403	Bolt	3
5	25520-85203	Shaft, gear shift lever	1
6	09284-17004	Seal, oil	1
7	25530-79501	Shaft, gear select	1
8	09286-09001	Seal. oil	1
9	25536-84200	Boot, gear select shaft	1
10	25535-85412	Arm, gear select	1
11	09162-08008	Washer	1
12	08322-01083	Washer	1
13	08310-00083	Nut	1
14	25541-85201	Lever, gear select	1
15	25576-70D00	Spring	1
16	09160-17035	Washer (17 x 32 x 1.2)	1
17	25545-85055	Dog, reverse shift limit	1
18	25546-60C01	Spring	1
19	09135-08005	Bolt	1
20	06111-10003	Ball	1
21	25547-70D00	Spring	1
22	09168-10007	Gasket	1
23	09128-10002	Bolt (10 x 9)	1
24	25211-85201	Fork, low speed gear shift	1
25	25221-85202	Fork, high speed gear shift	1
26	25221-83002	Fork, reverse gear shift	1
27	25411-85201	Shaft, low speed fork	1
28	25420-85201	Shaft, high speed fork	1
29	25451-85261	Shaft, reverse fork	1
30	09261-03017	Roller	1
31	09205-05012	Spring, pin	3
32	25415-83000	Spring	3
33	06111-12004	Ball	5
34	24821-09001	Plug, breather	1

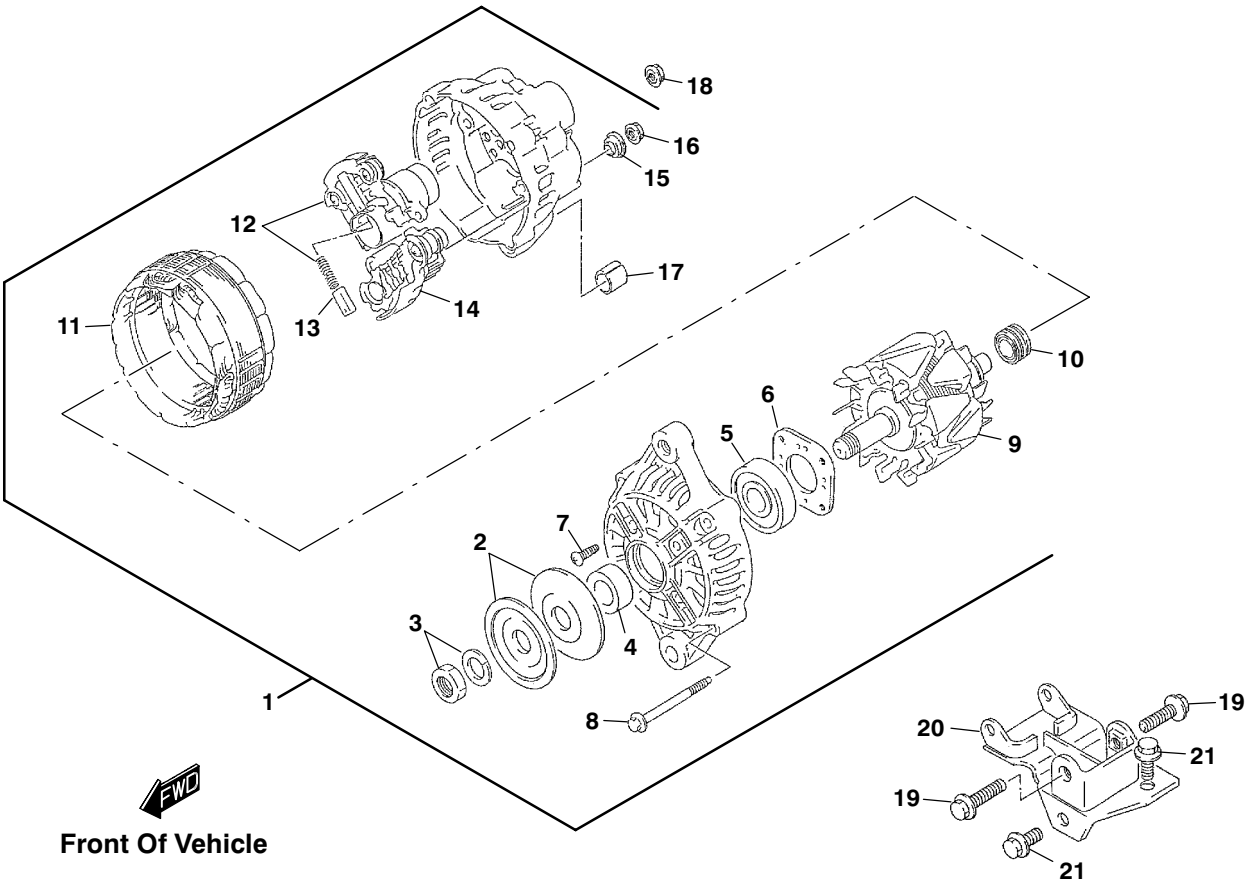
STARTER MOTOR (SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	31100-79X50	Motor, starting	1
2	31152-51A10	•Bushing	1
3	31220-51A10	•Switch assembly	1
4	08316-10063	•Nut	2
5	31191-85020	•Lever, pinion drive	1
6	08316-10083	•Nut, switch	2
7	31153-51A10	•Washer	1
8	31312-51A10	•Ring, snap	1
9	31310-51A10	•Nut, pinion stop	2
10	31320-51A10	•Clutch assembly	1
11	31311-51A10	•Armature	1
12	31110-52A50	•Yoke assembly	1
13	31131-51A10	••Brush	4
14	31135-51A10	•Spring, brush	4
15	31173-51A10	•Holder, brush	1
16	31175-51A10	•Insulator	1
17	31172-51A10	•Bushing	1
18	31281-51A10	•Bolt	2
19	08316-10083	Nut	1

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

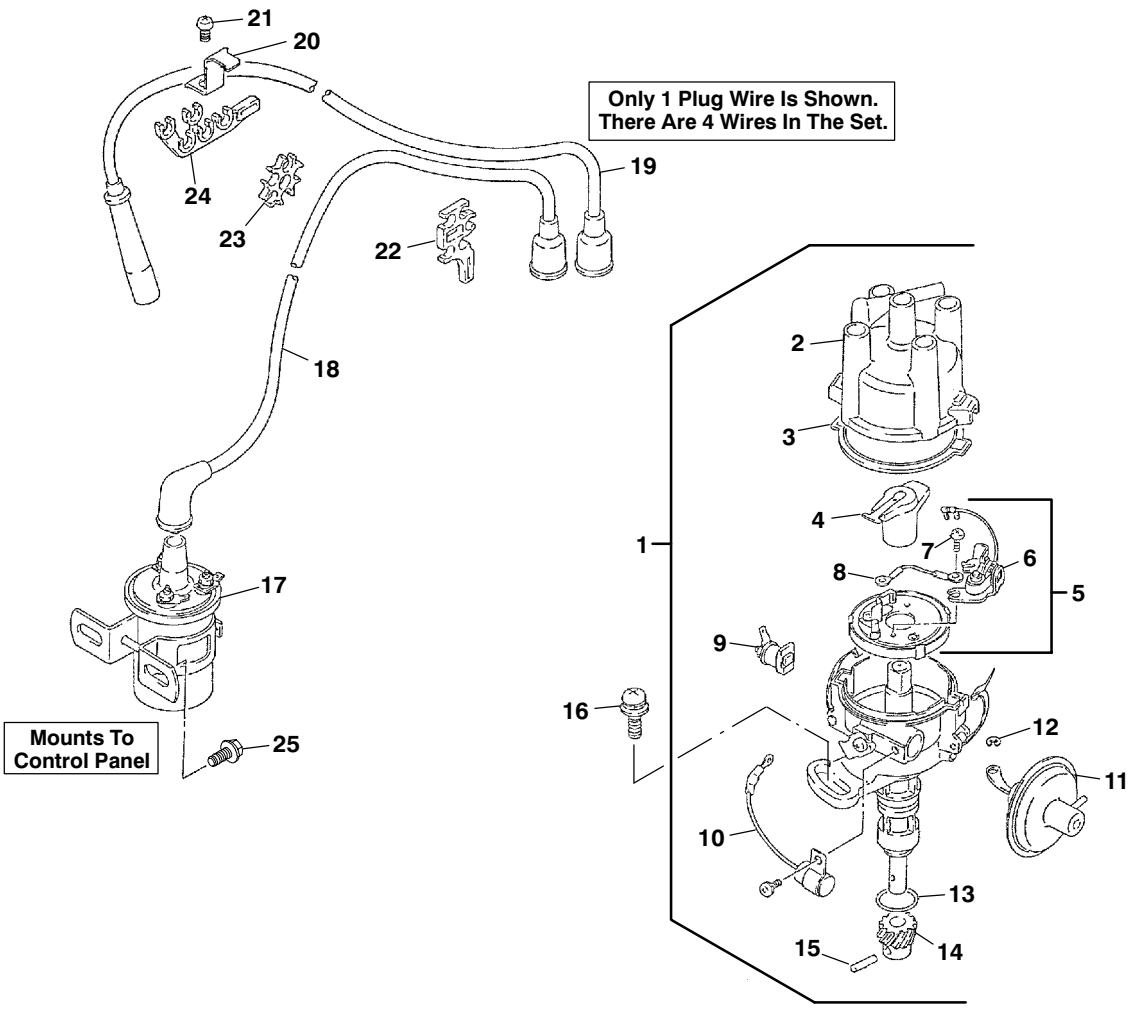
ALTERNATOR (SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	31400-60C11	Generator (alternator)	1
2	31771-82C20	•Pulley	2
3	31775-50F20	•Nut	1
4	31792-51F10	•Spacer	1
5	31582-50F20	•Bearing	1
6	31585-60A10	•Retainer, bearing	1
7	31586-60A10	•Screw	1
8	31651-86520	•Screw kit	1
9	31710-82C20	•Rotor	1
10	31612-60A10	••Bearing, rear	1
11	31410-85320	•Stator	1
12	32500-60C11	•Regulator	1
13	31631-60F30	••Brush set	2
14	31621-70D11	•Rectifier	1
15	31514-82630	•Insulator	1
16	08316-10063	•Nut	1
17	31616-82C20	•Bushing	1
18	08316-10063	Nut	1
19	01550-08303	Bolt	2
20	95110-66C00	Bracket	1
21	01550-08163	Bolt	3

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

DISTRIBUTOR (SUZUKI 970)



Ref. No.	Part No.	Description	No. Req'd
1	33100-85750	Distributor	1
2	33321-60A10	•Cap, distributor	1
3	33324-79610	•Seal, cap	1
4	33310-82010	•Rotor	1
5	33102-75110	•Breaker assembly	1
6	33140-74010	••Point assembly	1
7	33151-52011	••Screw, point	2
8	33341-76410	••Wire, read	1
9	33210-73010	•Terminal assembly	1
10	33261-77090	•Condenser	1
11	33230-85730	•Controller, vacuum	1
12	33239-76410	•E-ring	1
13	33278-85310	•O-ring	1
14	33267-79610	•Gear	1
15	33268-72010	•Pin	1
16	09138-08003	Screw (8 x 30)	1
17	33410-85010	Coil, ignition	1
18	33710-85051	Cord, high tension No. 1 (coil wire)	1
19	33705-85220	Cord set, high tension (spark plug wire set)	1
20	33881-75100	Bracket, cord clamp	1
21	02112-06083	Screw	1
22	33881-85210	Clamp, distributor side	1
23	33882-85210	Spacer, cord	1
24	33883-85210	Clamp, head	1
25	800934	Screw, M6-1.00 x 16 (10.9)	2

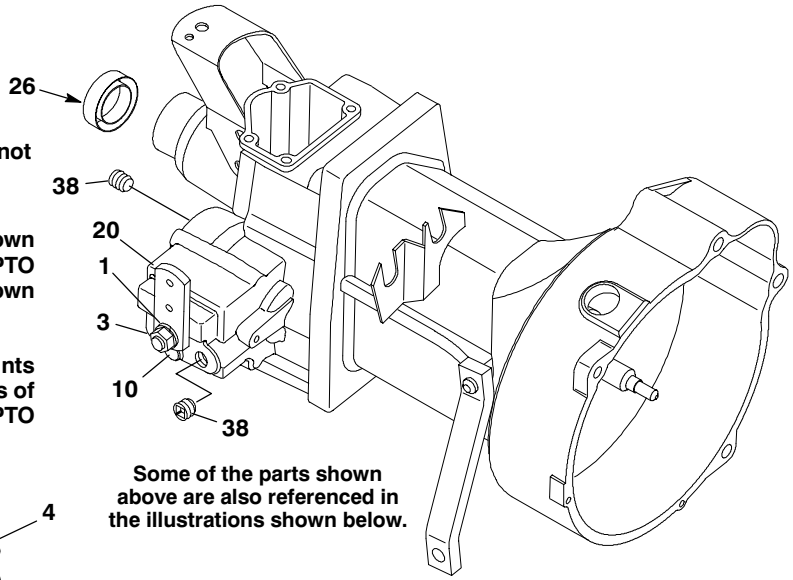
• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

MECHANICAL PTO
(SUZUKI 970 and PERKINS DIESEL)

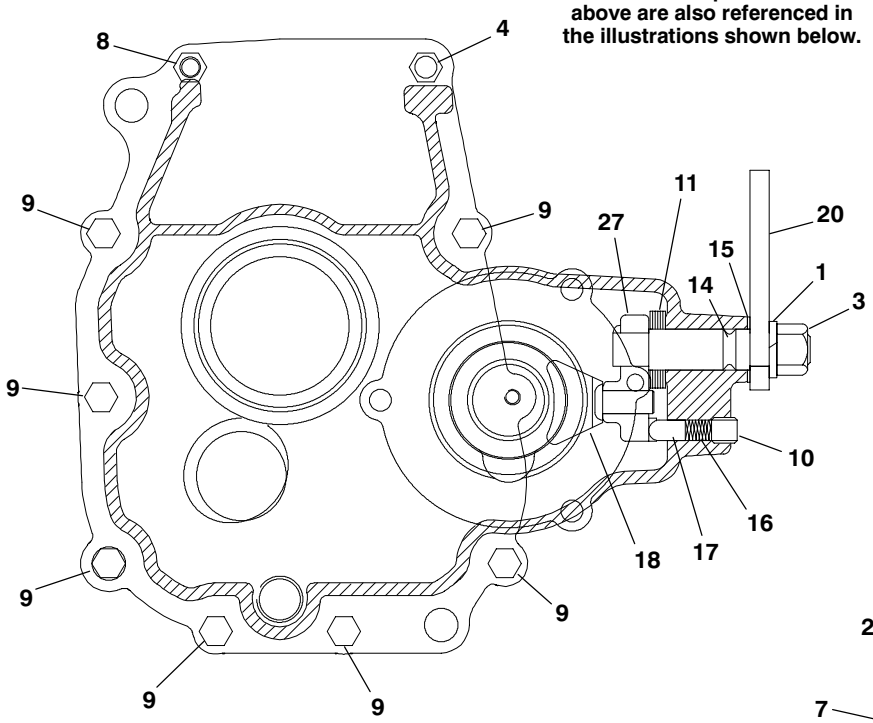
The parts breakdown illustration was not available at the time of this printing.

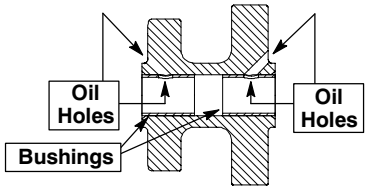
The isometric view of the transmission shown at the right references the location of the PTO housing. Please use the illustrations shown below for individual PTO parts.

Transmission fluid capacity is 2.6 pints (80W-90 gear oil). Fill to bottom of threads of oil fill plug hole, located on right side of PTO housing.

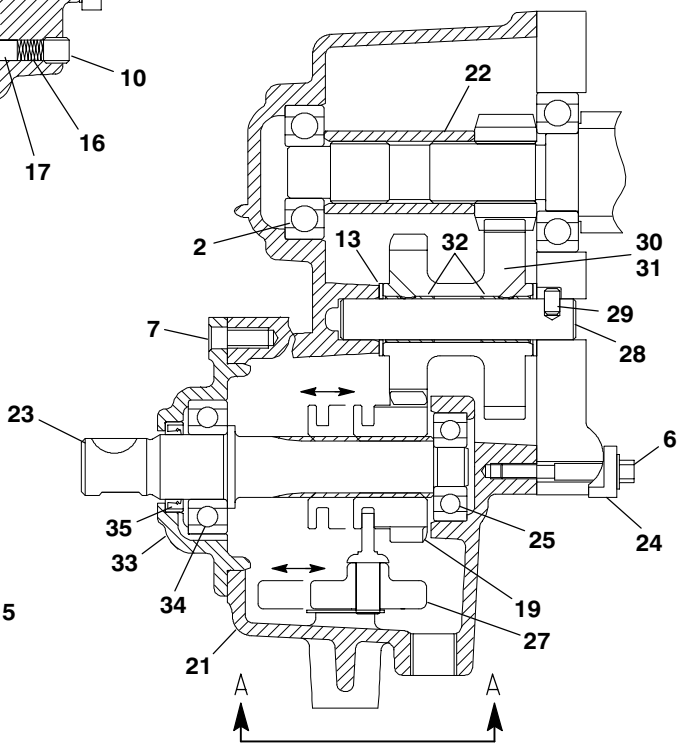


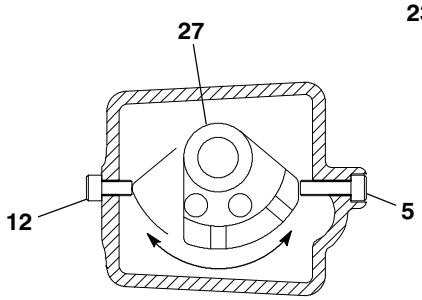
Some of the parts shown above are also referenced in the illustrations shown below.





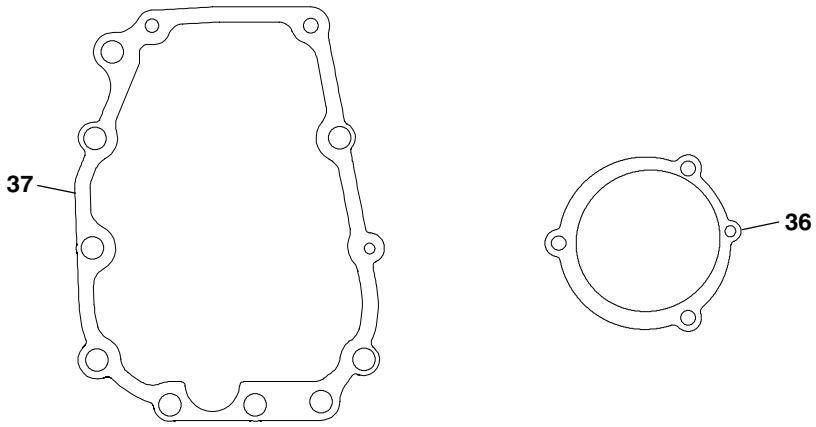
In reference to items 30, 31 & 32, make sure oil holes in gear align with oil holes in the bushings.





VIEW A-A

MECHANICAL PTO
(SUZUKI 970 and PERKINS DIESEL)



Ref. No.	Part No.	Description	No. Req'd
1	120166	Lockwasher, 1/2	1
2	181027	Bearing, ball (mm 20 52 15 "OP")	1
3	301988	Nut, 1/2-20	1
4	450324	Nut, M8-1.25 (G8.8)	1
5	452380	Bolt, M6-1.00 x 30 (8.8)	1
6	452381	Screw, M6-1.00 x 40 (8.8)	1
7	452389	Screw, M8-1.25 x 25 (8.8)	3
8	452390	Bolt, M8-1.25 x 30 (8.8)	1
9	452396	Bolt, M8-1.25 x 90 (8.8)	7
10	548204	Set screw, 3/8-16 x 3/8	1
11	548477	Washer	6
12	800425	Screw, M6-1.00 x 12 (8.8)	1
13	805307	Washer, 5/8	1
14	807624	O-ring	1
15	812419	Shim, transmission	1
16	815012	Spring	1
17	815013	Button	1
18	815085	Fork, shifter	1
19	815182	Gear, PTO sliding	1
20	817397	Arm, PTO shifter	1
21	844181	Housing, PTO	1
22	844184	Spacer, 5th gear	1
23	844185	Shaft, output	1
24	844186	Washer, special	1
25	844187	Bearing, ball (.59 1.65 .51 "OP")	1
26	844906	Seal, tailshaft	1
27	879807	Arm assembly, PTO shifter	1
28	894947	Shaft, idler	1
29	316942	•Pin, spirol	1
30	894965	Gear assembly, idler	1
31	844182	•Gear, idler	1
32	09304-16014	•Bushing, countershaft	2
33	894989	Housing, bearing	1
34	815093	•Bearing, ball (.998 2.05 .59 "OP")	1
35	844188	•Seal, oil	1
36	2700120	Gasket, PTO housing to trans	1
37	2700121	Gasket, PTO housing	1
38	09246-16010	Plug, oil fill	2

• INDENTED PART NAMES INDICATE THESE PARTS ARE INCLUDED IN THE PRECEDING ASSEMBLY

TORQUE SPECIFICATIONS
HEX HEAD CAP SCREWS

The torque values shown should be used as a general guideline when specific torque values are not given.
Note the minimum grade for the U.S. standard bolt is ***grade 5.***

U.S. Standard Hardware

Grade	**Shank Size** (Diameter in inches, fine or coarse thread)														
		1/4	**5/16**	**3/8**	**7/16**	**1/2**	**9/16**	**5/8**	**3/4**	**7/8**	**1**	**1 1/8**			
SAE grade 5*	ft.-lbs.	9	18	31	50	75	110	150	250	378	583	782			
	N·m	12	24	42	68	102	150	203	339	513	790	1060			
SAE grade 8**	ft.-lbs.	13	28	46	75	115	165	225	370	591	893	1410			
	N·m	18	38	62	108	156	224	305	502	801	1211	1912			
Flangelock Screw w/ Flangelock Nut	ft.-lbs.		24	40											
	N·m		33	54											

* Grade 5 marking – ***Minimum*** **commercial quality** (Lower quality not recommended).

** Grade 8 marking –

Metric Standard Hardware

Grade	**Shank Size** (Diameter in millimeters, fine or coarse thread)														
		M4	**M5**	**M6**	**M7**	**M8**	**M10**	**M12**	**M14**	**M16**	**M18**	**M20**	**M22**	**M24**	**M27**
Grade 8.8*	ft.-lbs.	1.5	3	5.2	8.2	13.5	24	43.5	70.5	108	142	195	276	353	530
	N·m	2	4	7	11	18	32	58	94	144	190	260	368	470	707
Grade 10.9**	ft.-lbs.	2.2	4.5	7.5	12	18.8	35.2	62.2	100	147	202	275	390	498	747
	N·m	3	6	10	16	25	47	83	133	196	269	366	520	664	996
Grade 12.9***	ft.-lbs.	2.7	5.2	8.2	15	21.8	43.5	75	119	176	242	330	471	596	904
	N·m	3.6	7	11	20	29	58	100	159	235	323	440	628	794	1205

* Grade 8.8 marking –

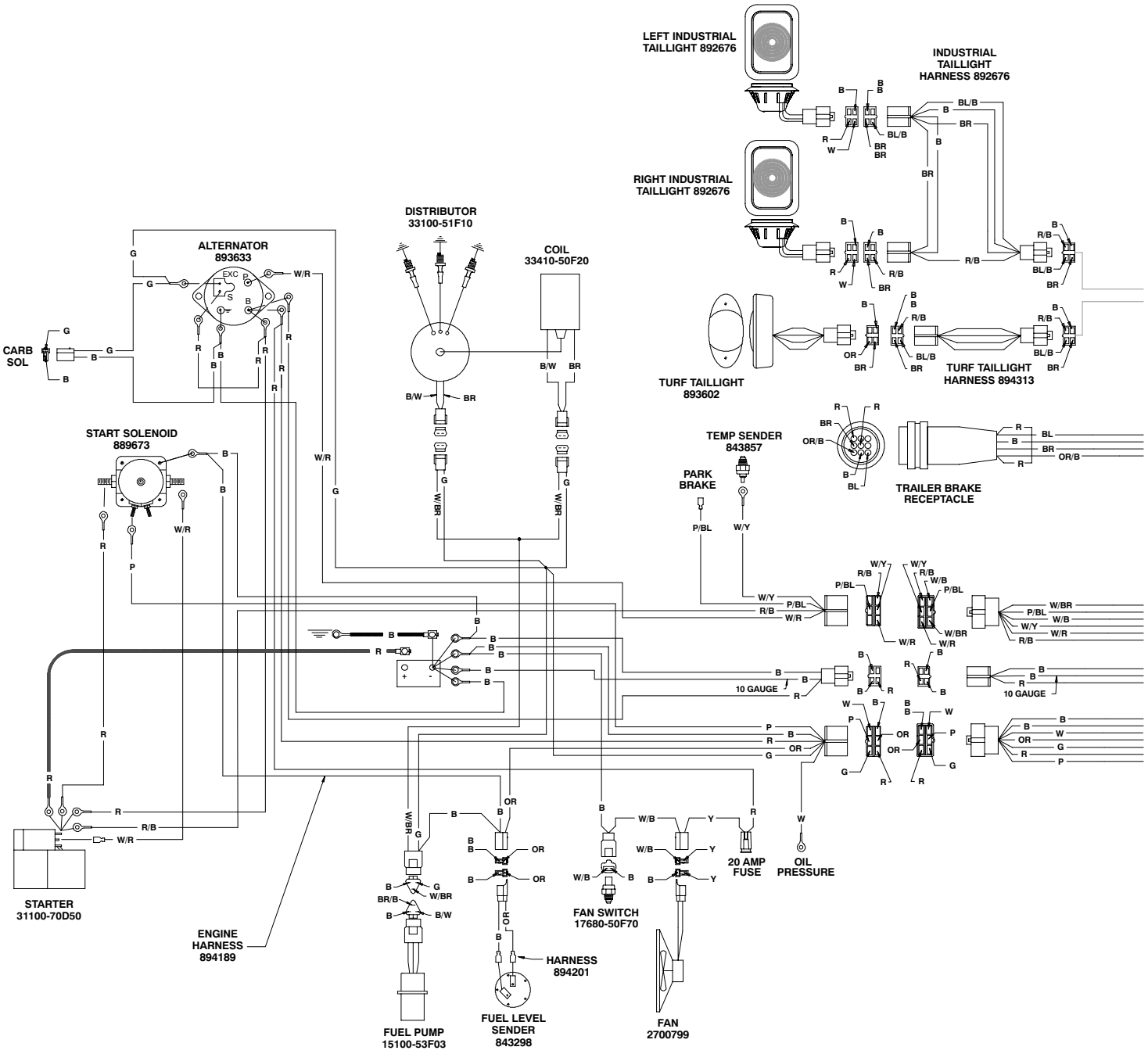
** Grade 10.9 marking –

*** Grade 12.9 marking –

SERVICE

DATE	SERVICE DONE	INITIAL

WIRING DIAGRAM
SUZUKI K6A TURF TRUCKSTER

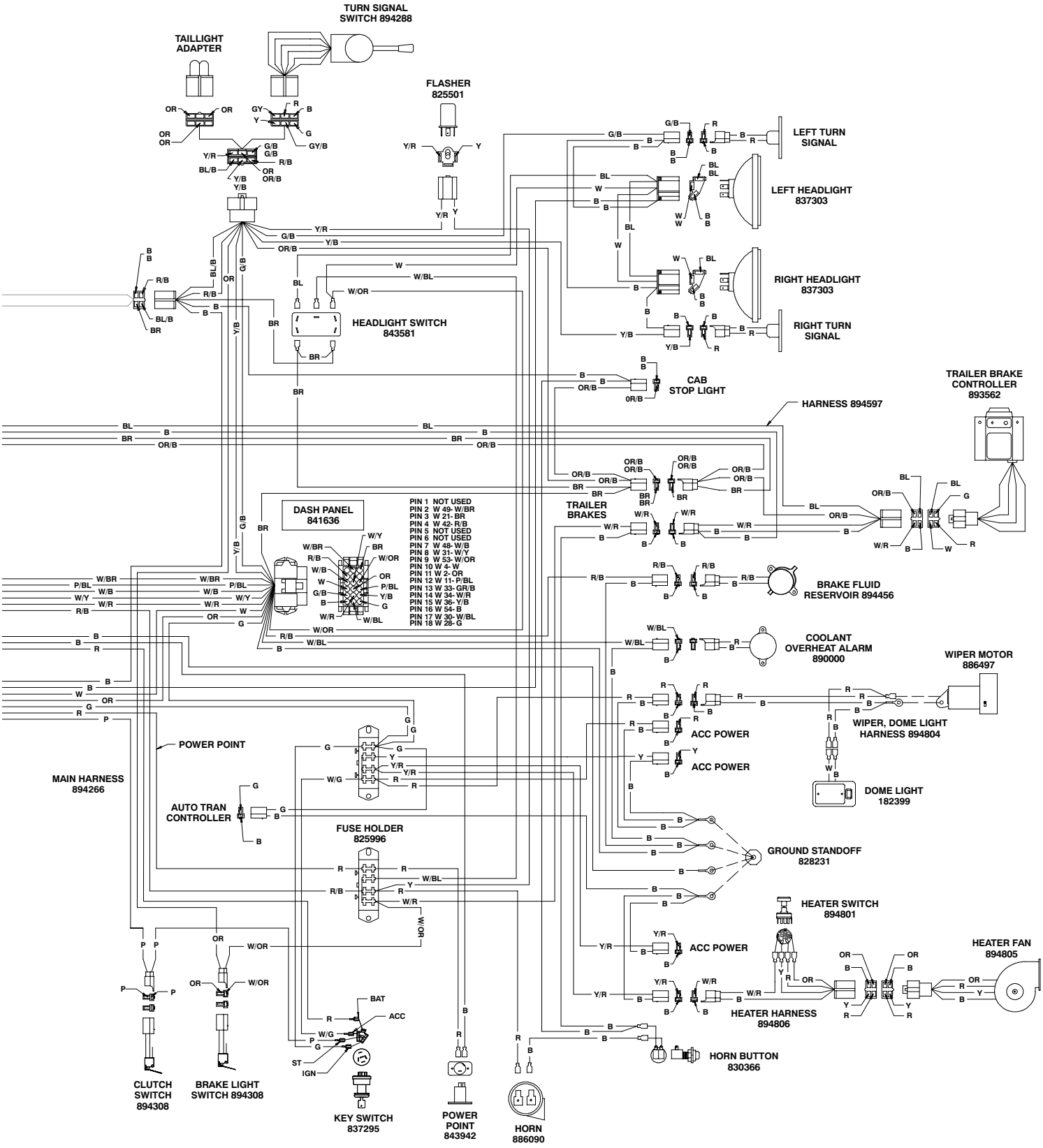


COLOR CODE:

B - BLACK	W - WHITE	W/BR - WHITE w/BROWN STRIPE
BL - BLUE	Y - YELLOW	W/G - WHITE w/GREEN STRIPE
BR - BROWN	BL/B - BLUE w/BLACK STRIPE	W/OR - WHITE w/ORANGE STRIPE
G - GREEN	G/B - GREEN w/BLACK STRIPE	W/R - WHITE w/RED STRIPE
GY - GREY	OR/B - ORANGE w/BLACK STRIPE	W/Y - WHITE w/YELLOW STRIPE
OR - ORANGE	P/BL - PURPLE w/BLUE STRIPE	Y/B - YELLOW w/BLACK STRIPE
PK - PINK	R/B - RED w/BLACK STRIPE	Y/R - YELLOW w/RED STRIPE
P - PURPLE	W/B - WHITE w/BLACK STRIPE	
R - RED	W/BL - WHITE w/BLUE STRIPE	

W.D. No.1

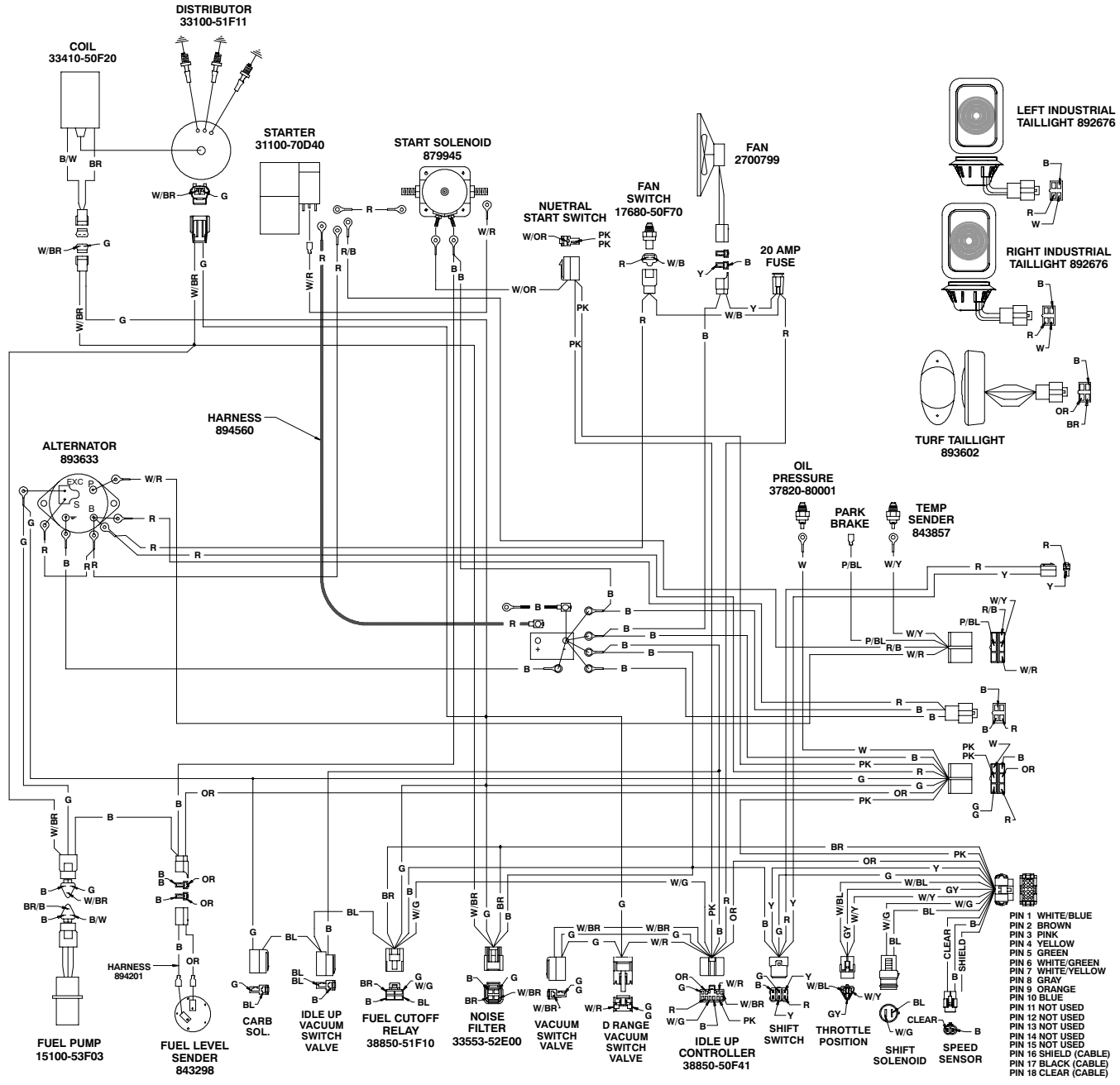
WIRING DIAGRAM SUZUKI K6A (con't.)



W.D. No.1

WIRING DIAGRAM

SUZUKI K6A TURF TRUCKSTER with AUTOMATIC TRANSMISSION (con't.)



COLOR CODE:

B - BLACK	W - WHITE	W/BR - WHITE w/BROWN STRIPE
BL - BLUE	Y - YELLOW	W/G - WHITE w/GREEN STRIPE
BR - BROWN	BL/B - BLUE w/BLACK STRIPE	W/OR - WHITE w/ORANGE STRIPE
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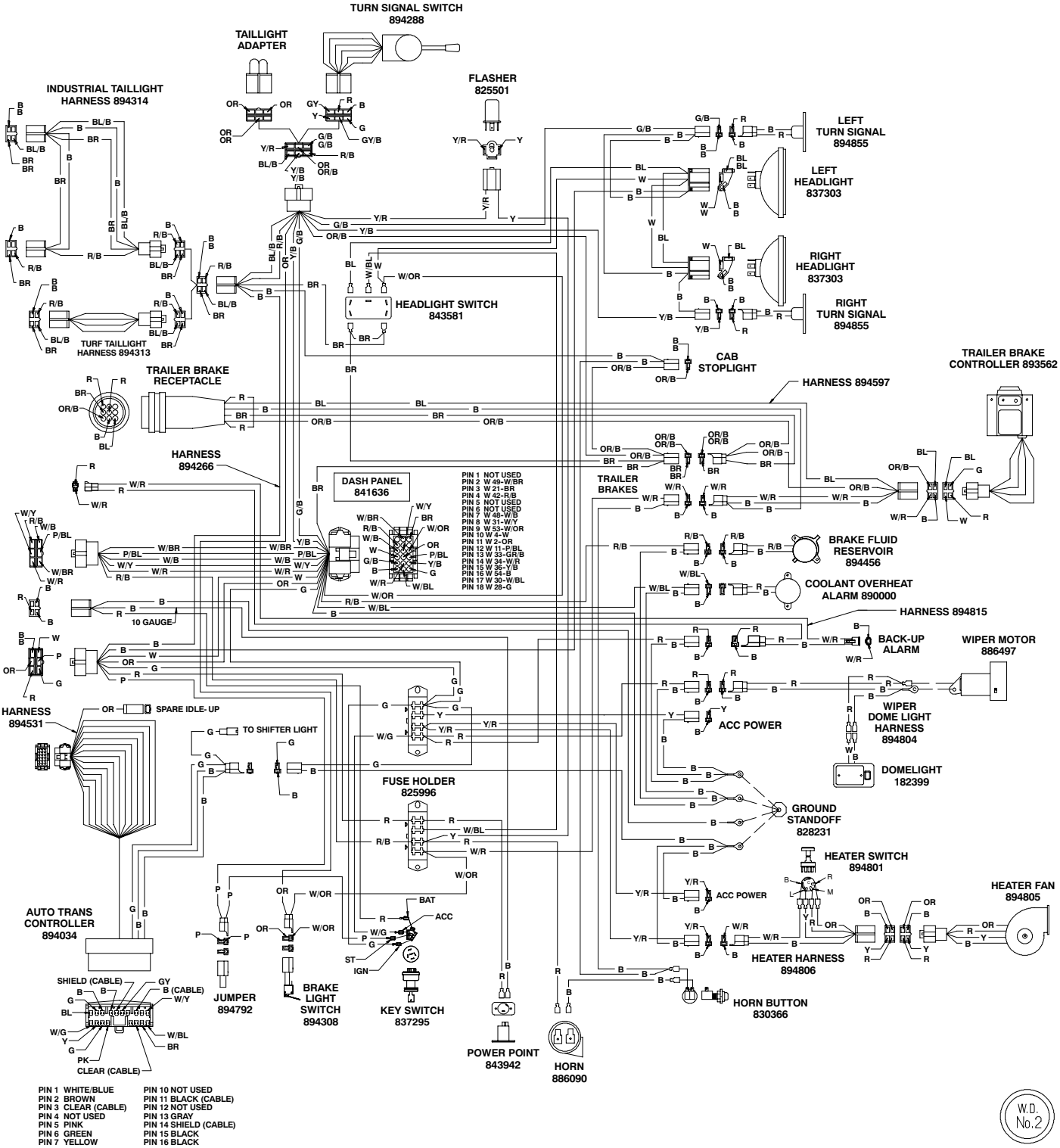
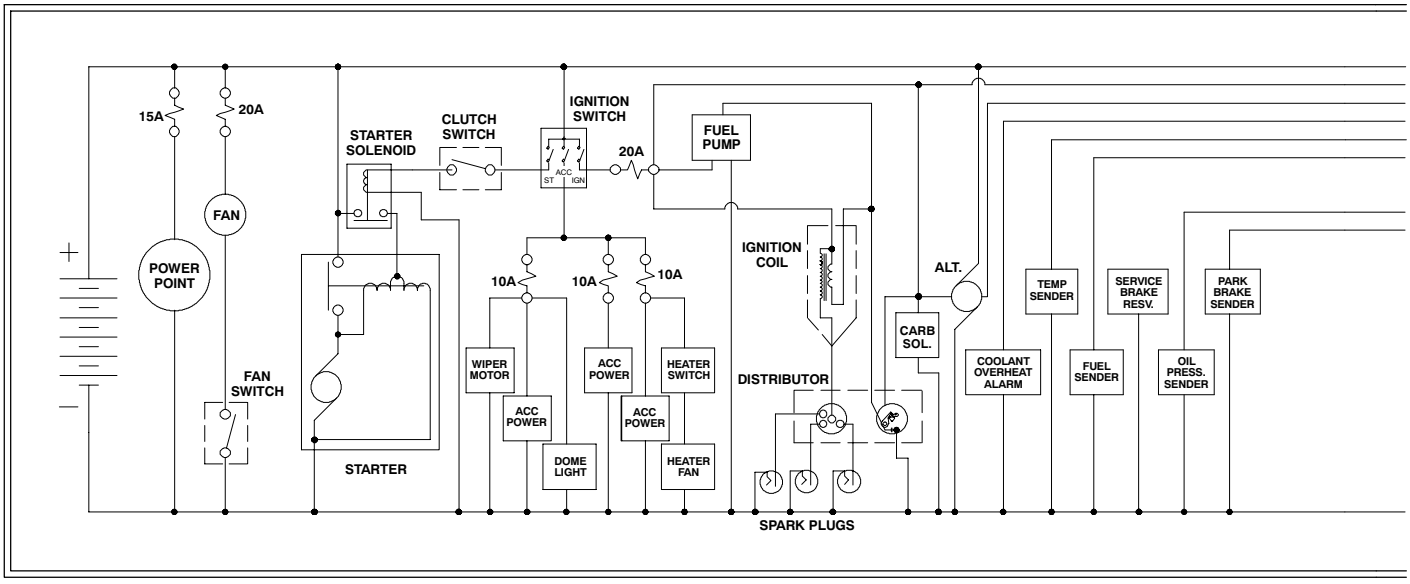
PK - PINK	R/B - RED w/BLACK STRIPE	Y/R - YELLOW w/RED STRIPE
P - PURPLE	W/B - WHITE w/BLACK STRIPE	
R - RED	W/BL - WHITE w/BLUE STRIPE	

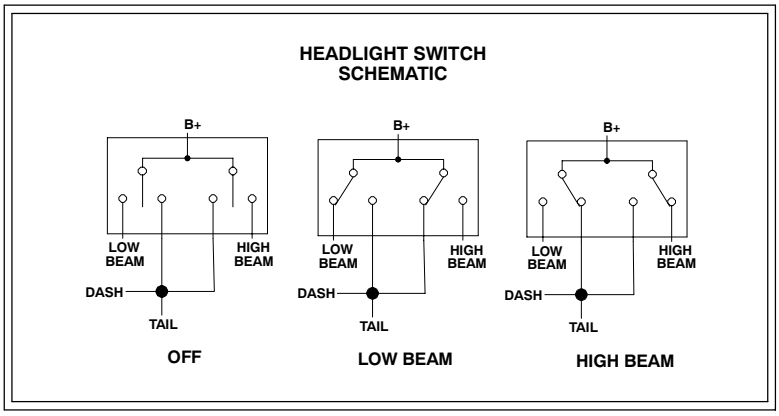
W.D. No.2

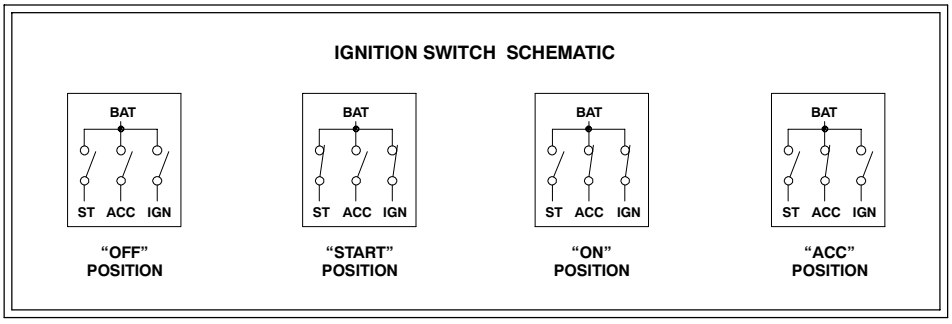
WIRING DIAGRAM
SUZUKI K6A TURF TRUCKSTER
with AUTOMATIC TRANSMISSION (con't.)



WIRING SCHEMATIC
SUZUKI K6A TURF TRUCKSTER

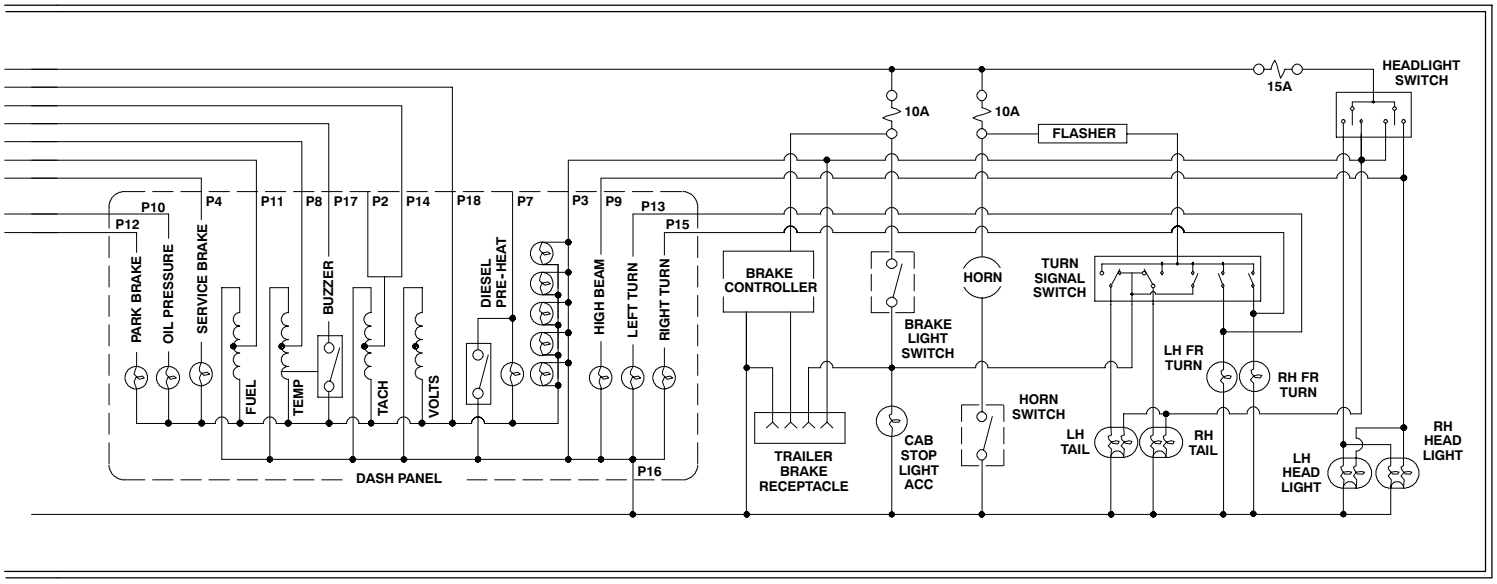


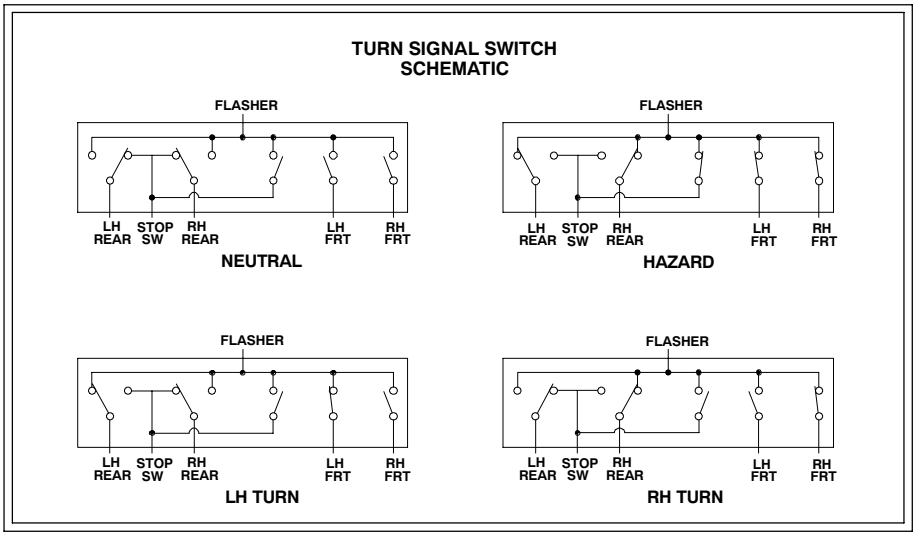




W.S. No.1

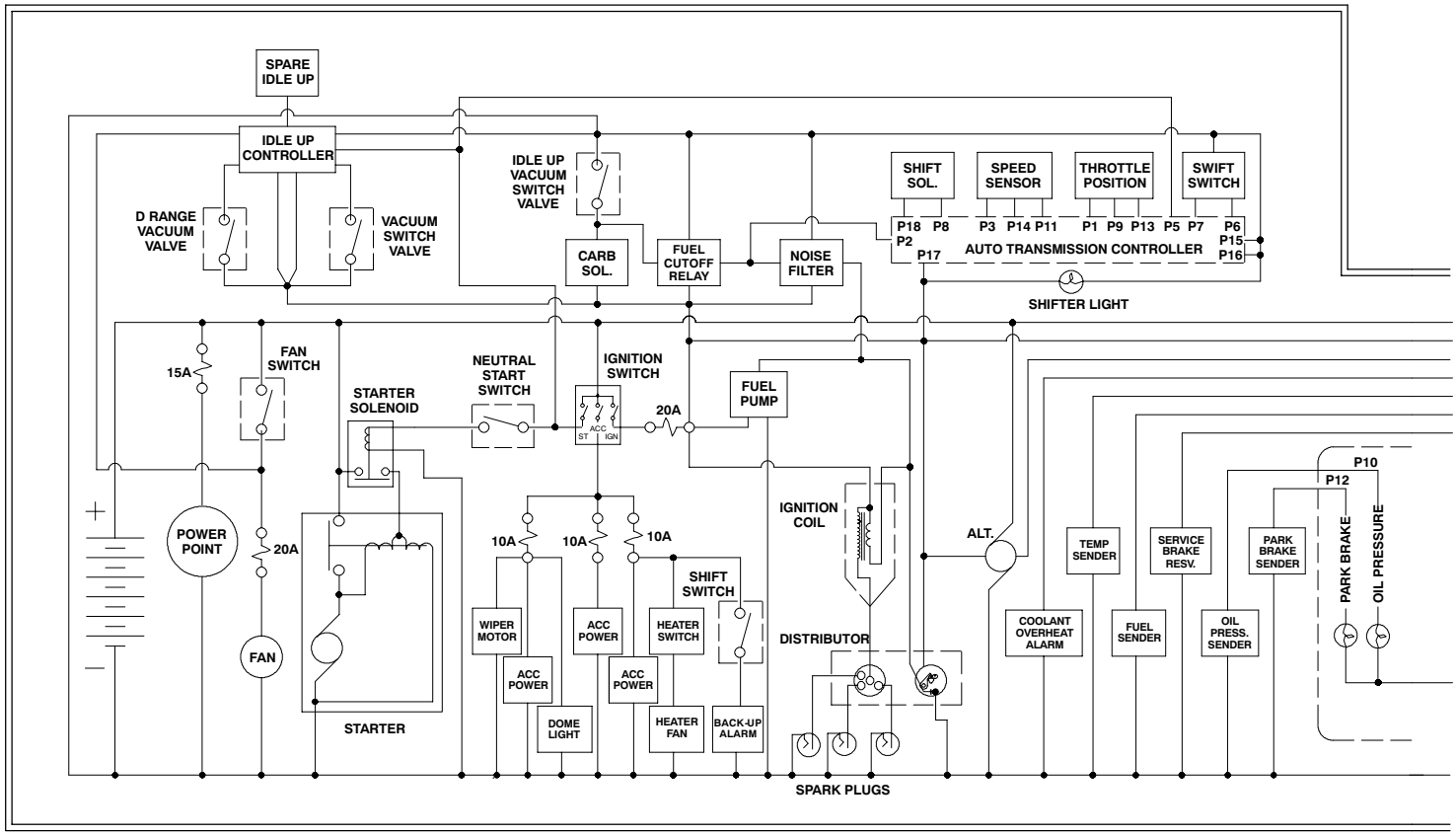
WIRING SCHEMATIC
SUZUKI K6A TURF TRUCKSTER (con't.)

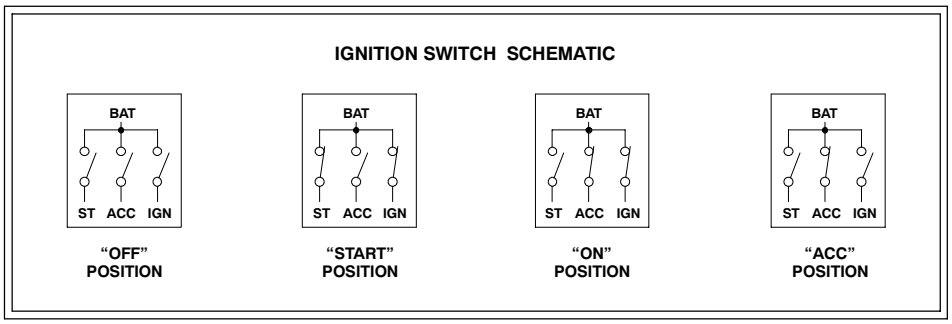




W.S. No.1

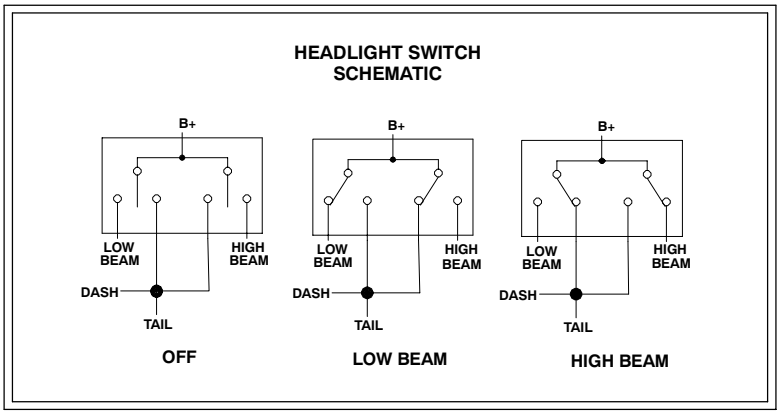
WIRING SCHEMATIC
SUZUKI K6A TURF TRUCKSTER
WITH AUTOMATIC TRANSMISSION

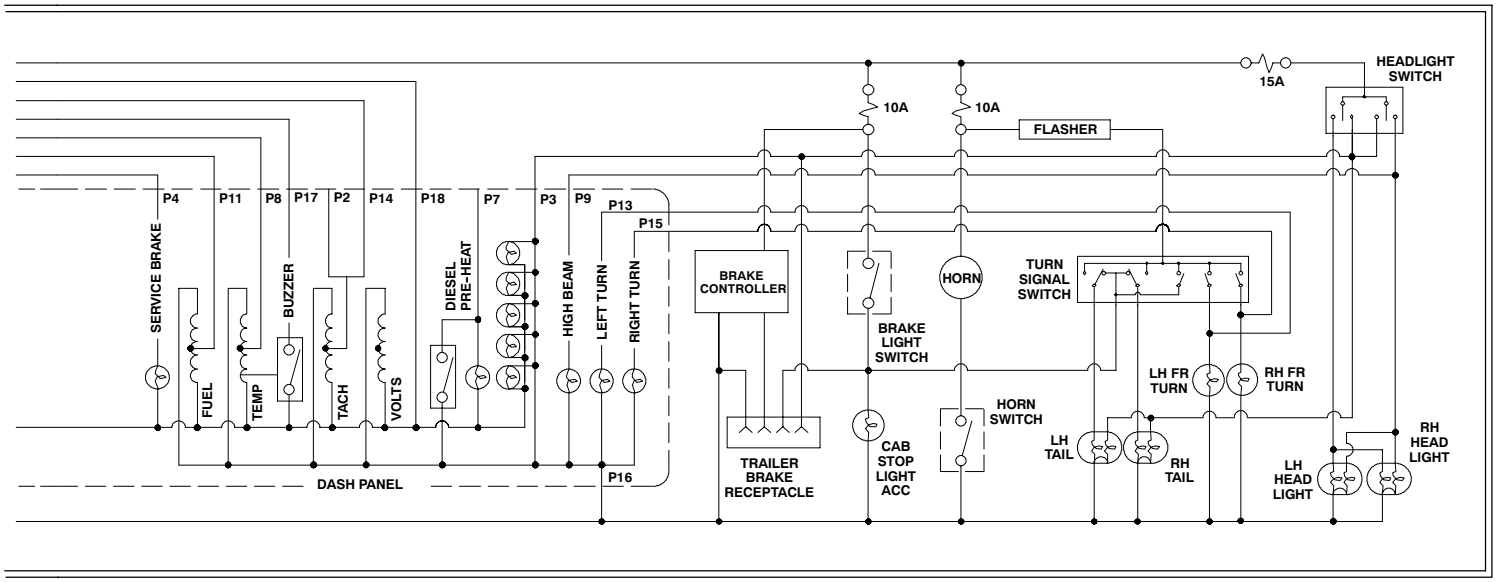


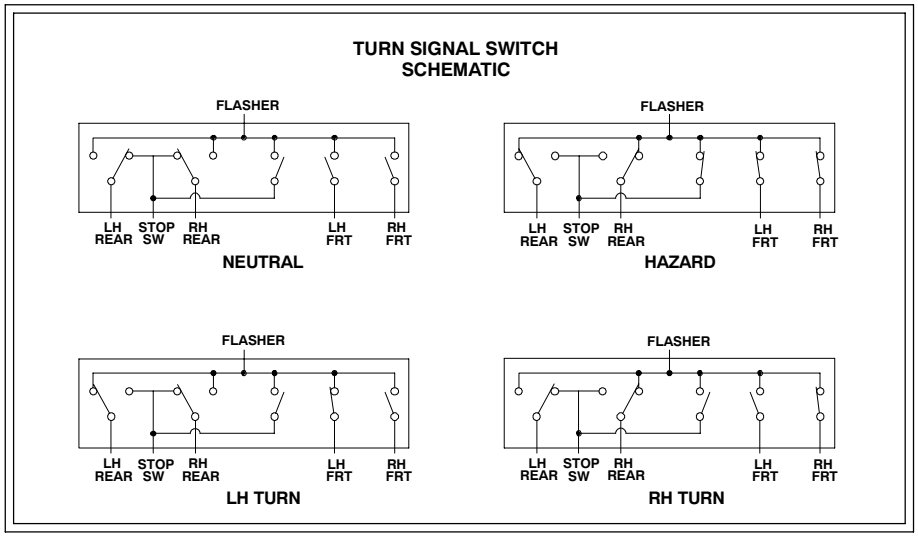


W.S. No.2

WIRING SCHEMATIC
SUZUKI K6A TURF TRUCKSTER
WITH AUTOMATIC TRANSMISSION (con't.)

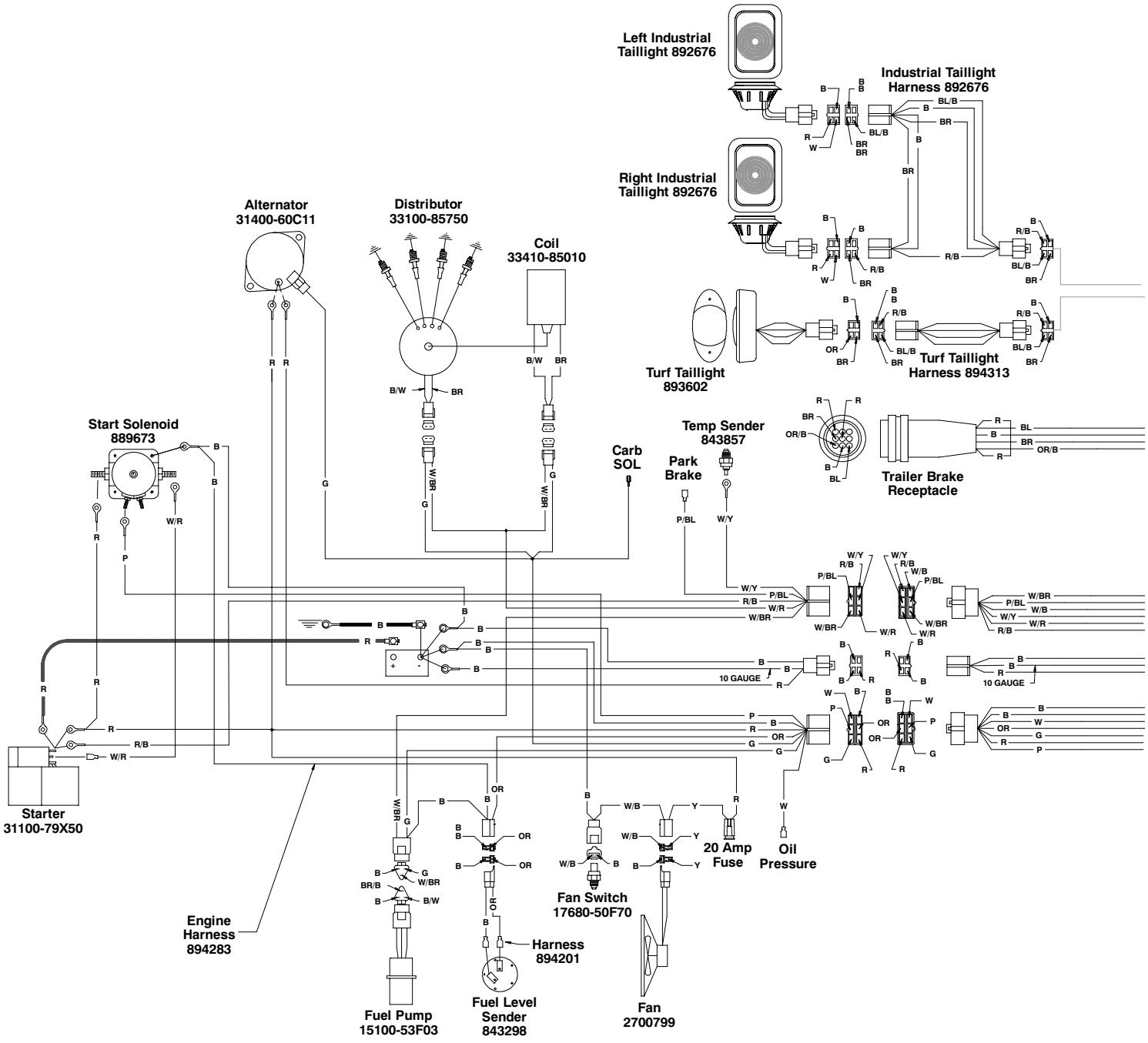






W.S. No.2

WIRING DIAGRAM
SUZUKI 970 TURF TRUCKSTER



COLOR CODE:

B - BLACK	W - WHITE	W/BR - WHITE w/BROWN STRIPE
BL - BLUE	Y - YELLOW	W/G - WHITE w/GREEN STRIPE
BR - BROWN	BL/B - BLUE w/BLACK STRIPE	W/OR - WHITE w/ORANGE STRIPE
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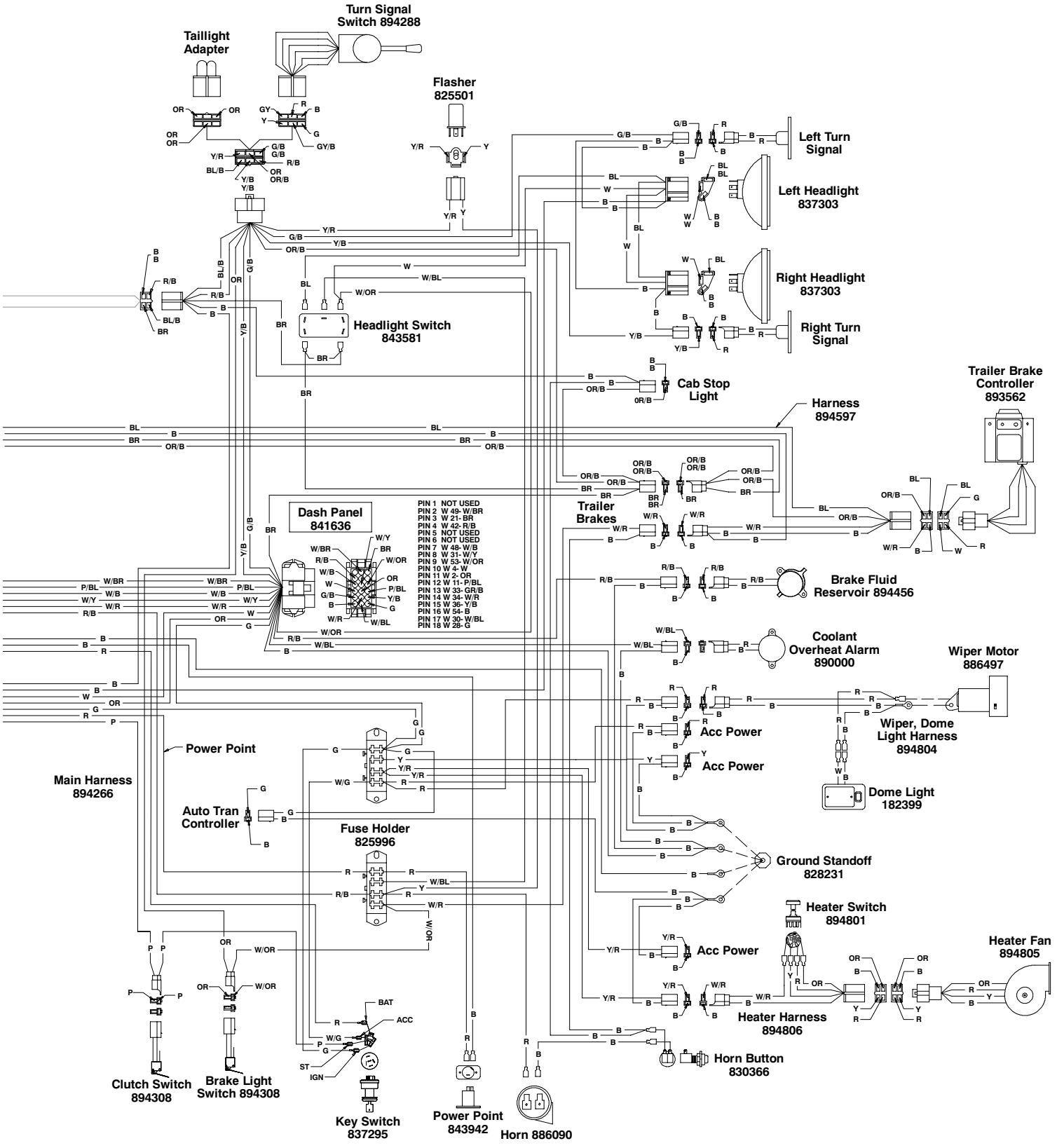
OR - ORANGE	P/BL - PURPLE w/BLUE STRIPE	Y/B - YELLOW w/BLACK STRIPE
PK - PINK	R/B - RED w/BLACK STRIPE	Y/R - YELLOW w/RED STRIPE
P - PURPLE	W/B - WHITE w/BLACK STRIPE	
R - RED	W/BL - WHITE w/BLUE STRIPE	

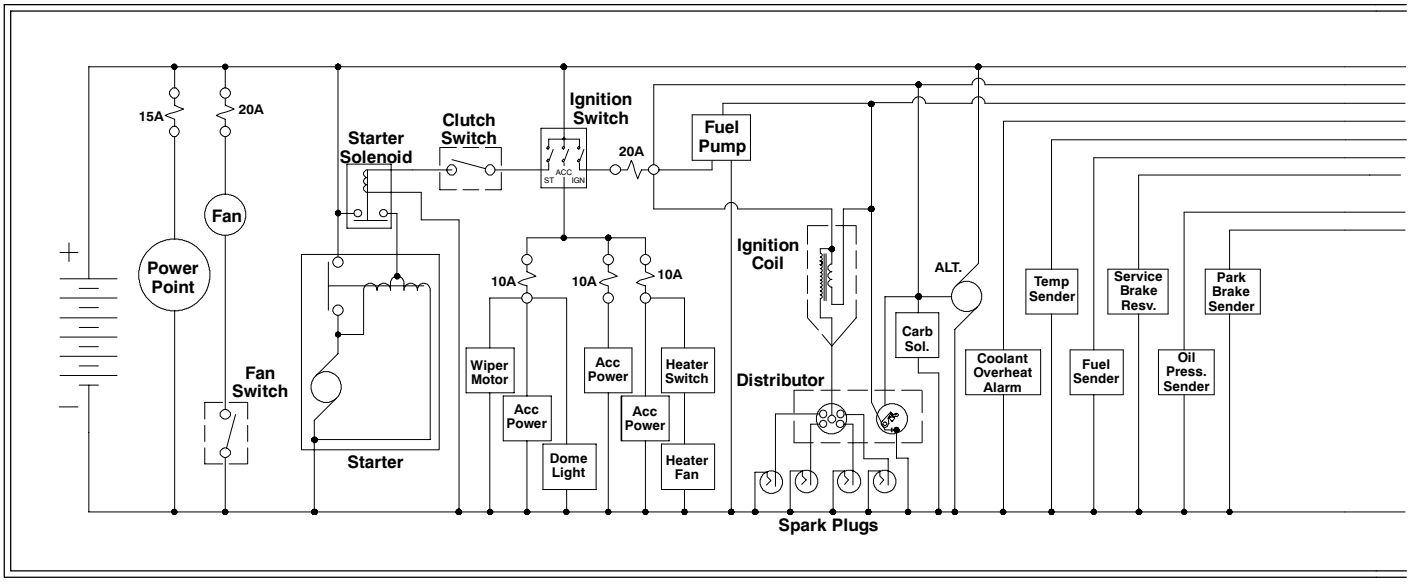
W.D. No. 3

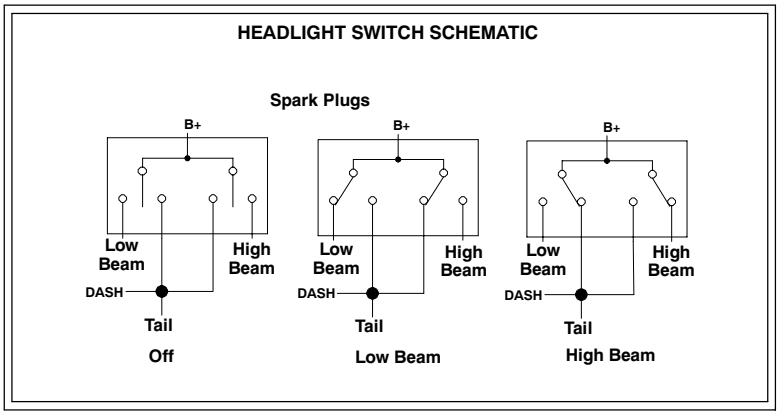
WIRING DIAGRAM
SUZUKI 970 TURF TRUCKSTER (con't.)

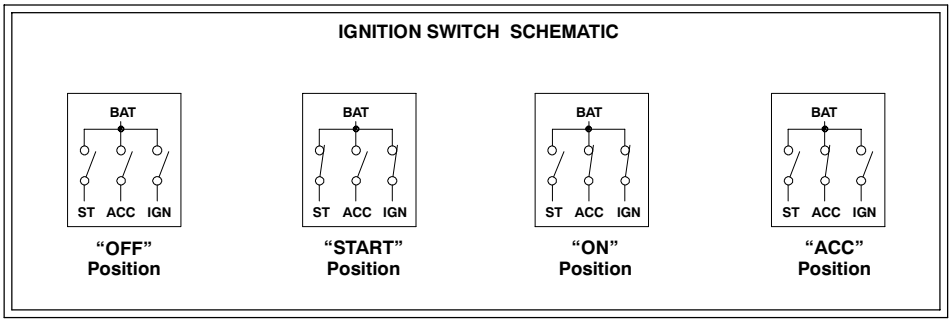


W.D. No. 3

WIRING SCHEMATIC
SUZUKI 970 TURF TRUCKSTER

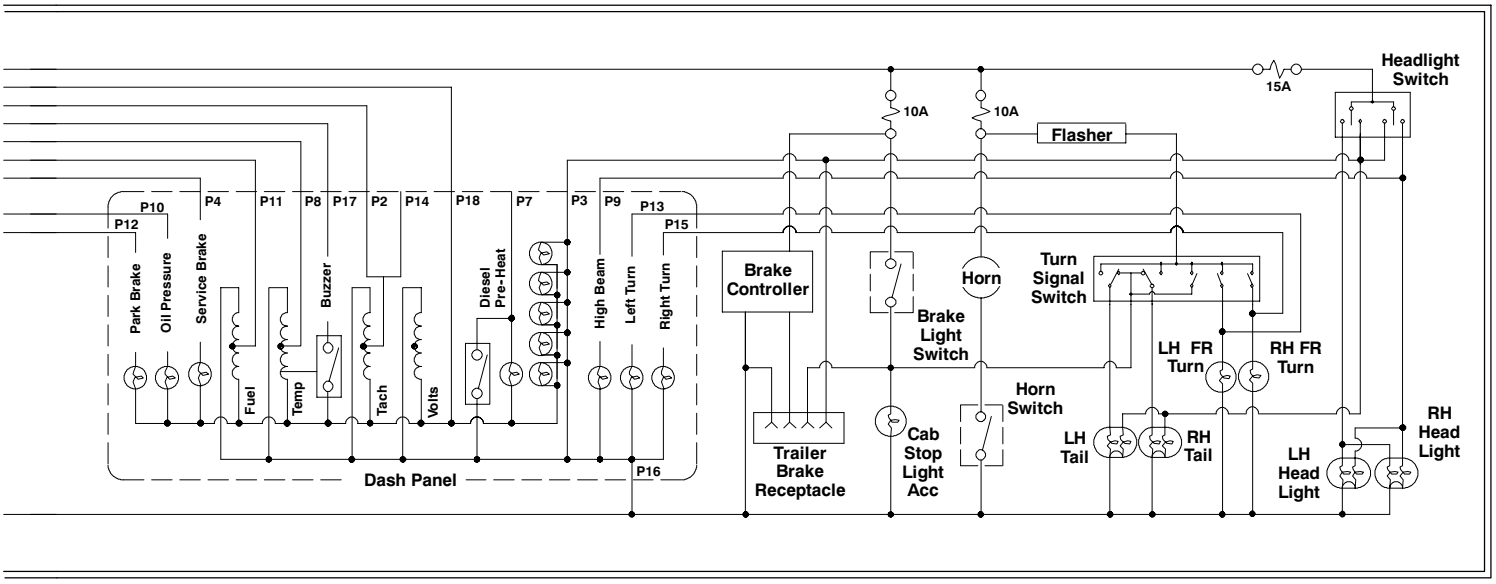


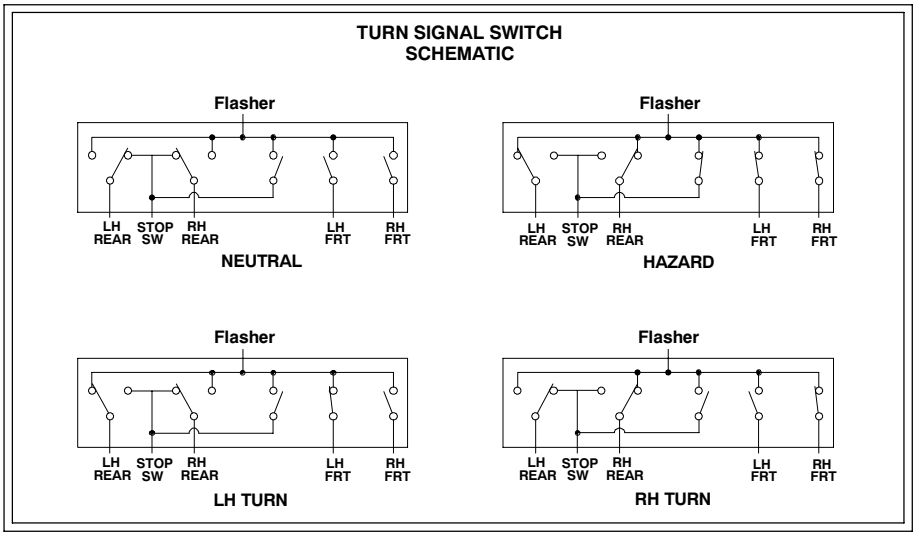




W.S. No.3

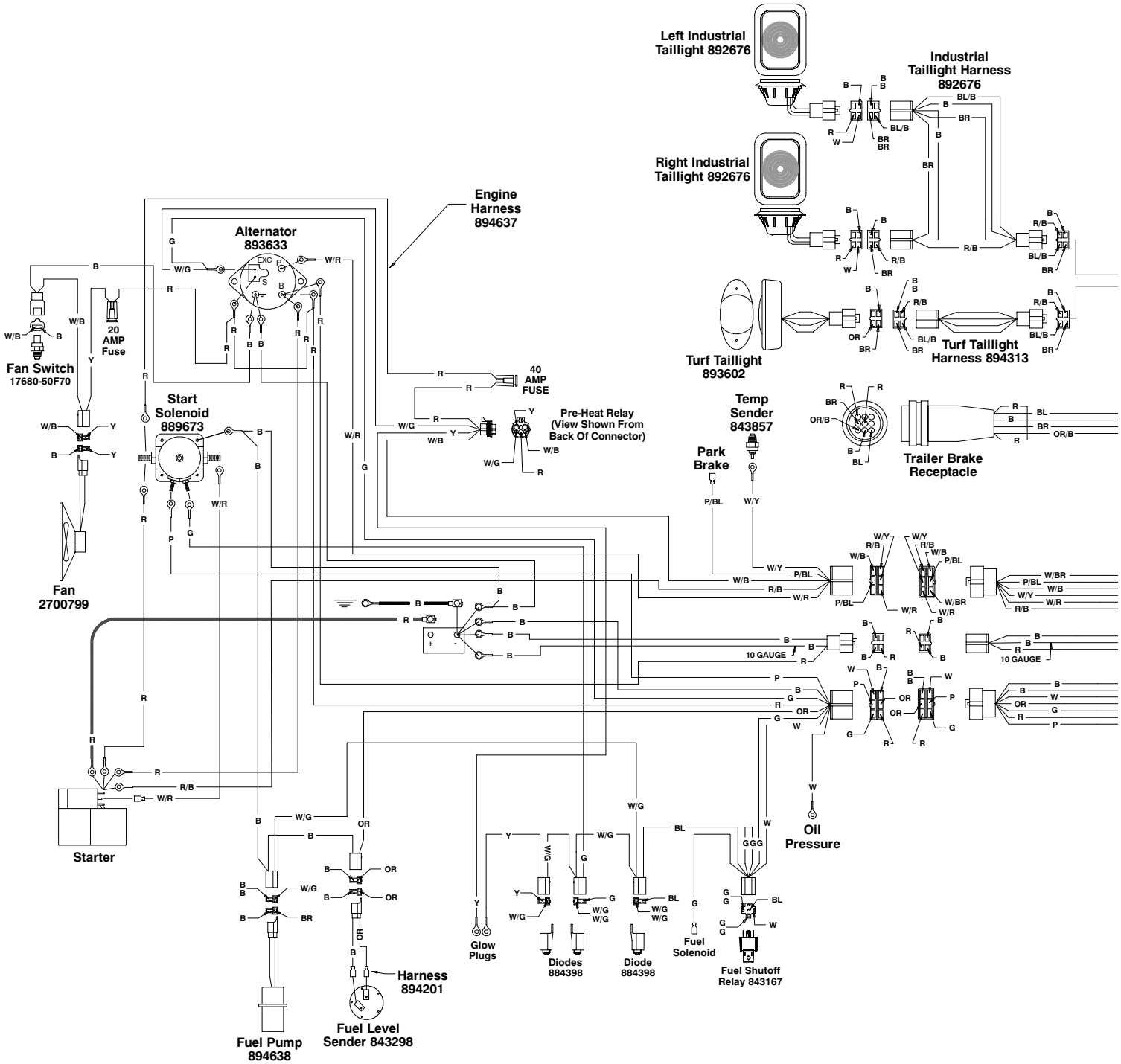
WIRING SCHEMATIC
SUZUKI 970 TURF TRUCKSTER (con't.)





W.S. No. 3

WIRING DIAGRAM
DIESEL TURF TRUCKSTER



COLOR CODE:

B - BLACK	W - WHITE	W/BR - WHITE w/BROWN STRIPE
BL - BLUE	Y - YELLOW	W/G - WHITE w/GREEN STRIPE
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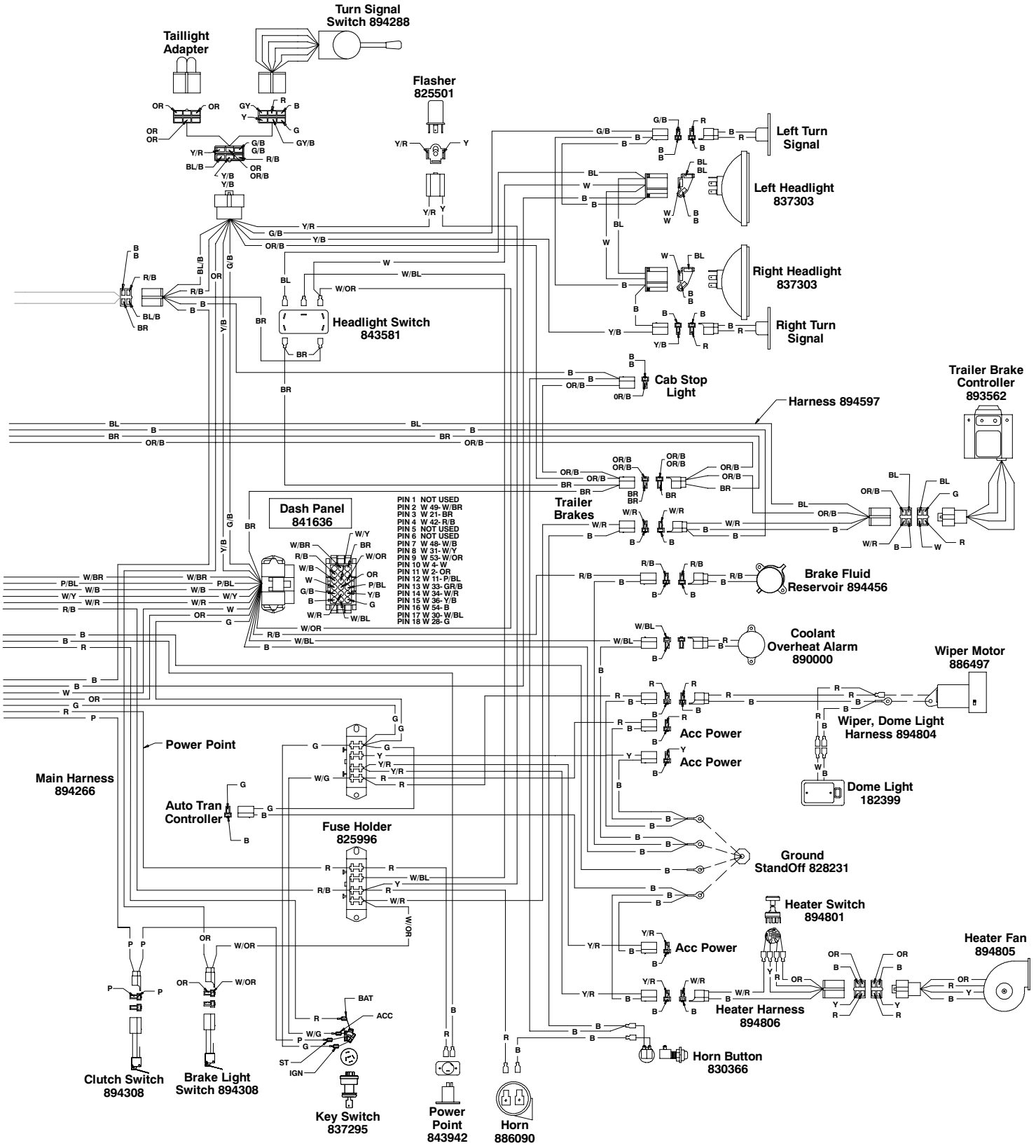
PK - PINK	R/B - RED w/BLACK STRIPE	Y/R - YELLOW w/RED STRIPE
P - PURPLE	W/B - WHITE w/BLACK STRIPE	
R - RED	W/BL - WHITE w/BLUE STRIPE	

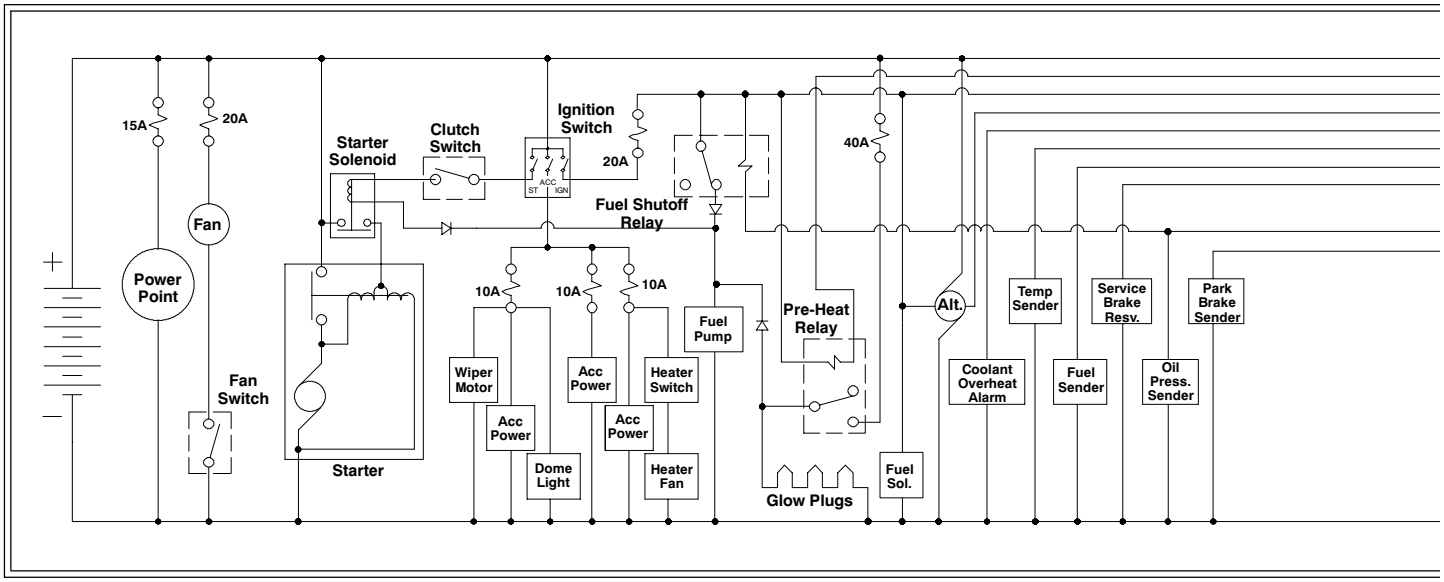
W.D. No.4

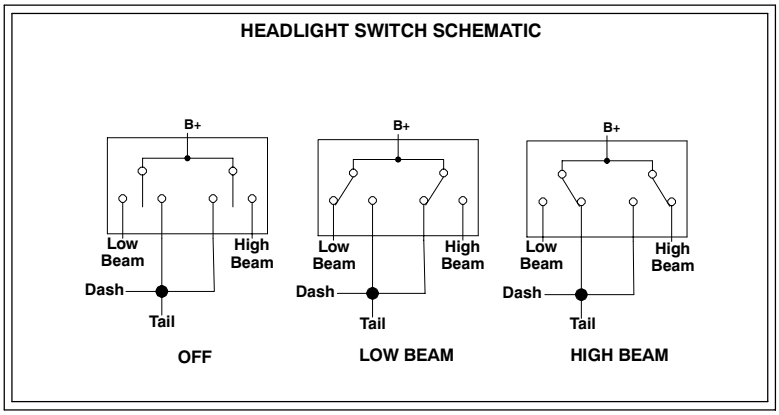
WIRING DIAGRAM
DIESEL TURF TRUCKSTER (con't.)

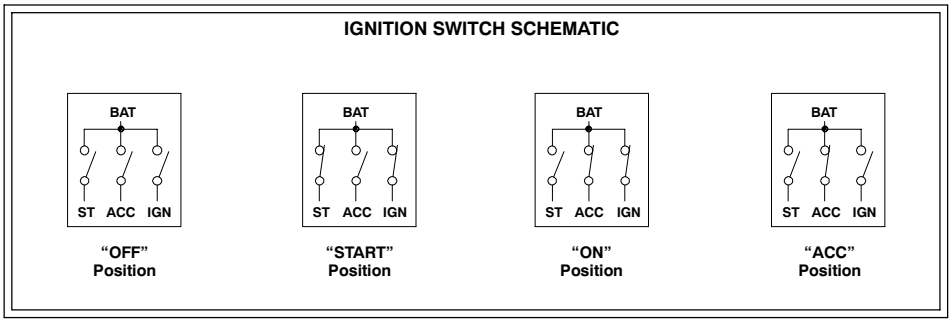


W.D. No.4

WIRING SCHEMATIC
DIESEL TURF TRUCKSTER

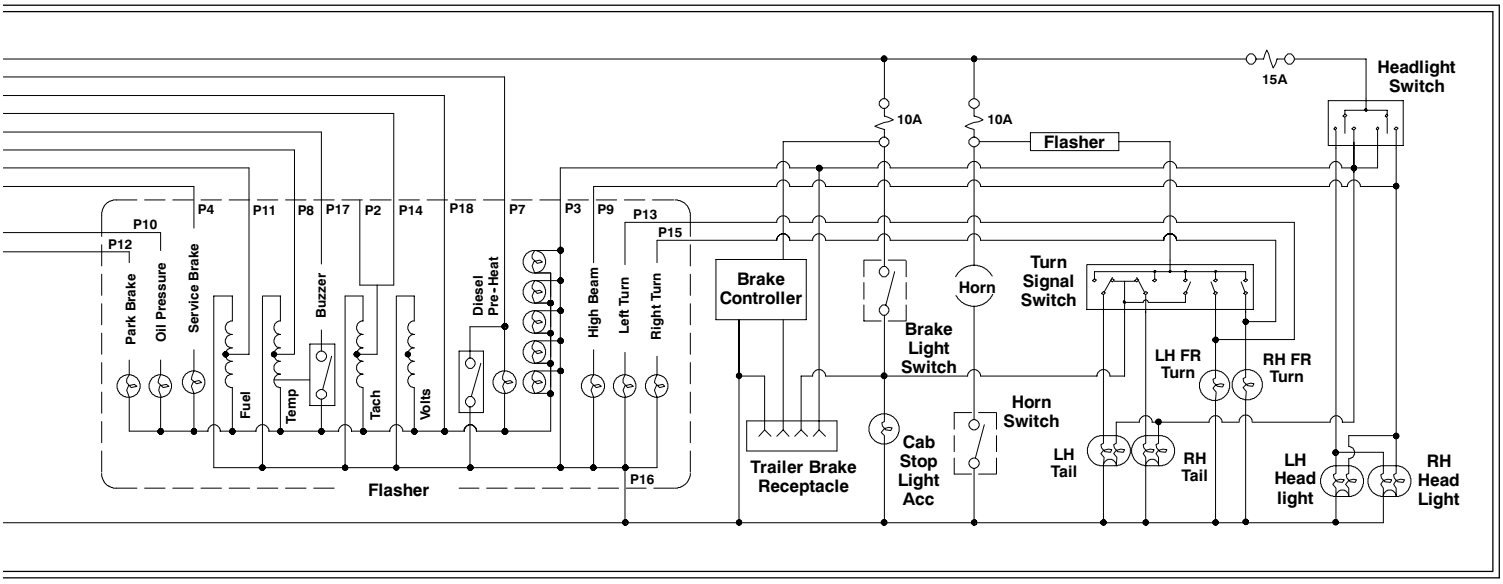


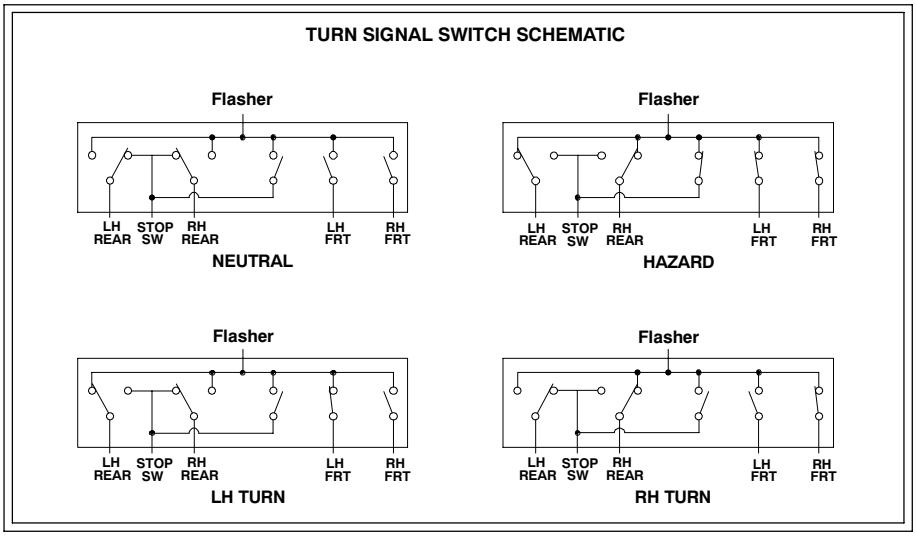




W.S. No.4

WIRING SCHEMATIC
DIESEL TURF TRUCKSTER (con't.)





W.S. No. 4

NOTES

CUSHMAN
A Textron Company

Cushman Products
P.O. Box 388 Augusta, Georgia 30903-0388 USA
Inside USA Phone: 1-800-241-5855, FAX: 1-800-448-8124
Outside USA Phone: 010-1-706-798-4311, FAX: 010-1-706-771-4609

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